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## 13. ABSTRACT (Maximum 200 words)

THIS REPORT IS INTENDED TO SERVE TWO PURPOSES: 1. TO MAKE AVAILABLE BASIC GROUND WATER DATA USEFUL IN PLANNING AND STUDYING WATER RESOURCES DEVELOPMENT AND 2. TO SUPPLEMENT AN INTERPRETIVE REPORT THAT WILL BE PUBLISHED LATER. THE RECORDS WERE COLLECTED DURING THE INVESTIGATION OF THE GEOLOGY AND GROUND WATER RESOURCES OF THE DENVER BASIN MADE BY THE USGS FROM 1956-1963. THIS REPORT SHOULD BE MOST USEFUL IN PREDICTING CONDITIONS LIKELY TO BE ENCOUNTERED WHEN DRILLING A NEW WELL. THE PROPOSED DRILLING SITE CAN BE LOCATED ON PLATES 1 OR 2, AND THE RECORDS OF NEARBY WELLS CAN BE EXAMINED. OTHER SIGNIFICANT FACTORS CAN BE DETERMINED FROM TABLE 1-9 AS FOLLOWS: WHETHER IT IS PRACTICAL TO DRILL DEEPER IN SEARCH OF WATER; THE SUCCESS OR FAILURE OF NEARBY WELLS; TYPE OF MATERIALS LIKELY TO BE PENETRATED BY THE PROPOSED WELL; PHYSICAL PROPERTIES OF FORMATION MATERIALS; FLUCTUATIONS AND TRENDS OF THE WATER TABLE; AND QUALITY OF WATER IN RELATION TO THE INTENDED USE. THESE AND OTHER USES OF THE REPORT WILL BE FACILITATED UPON

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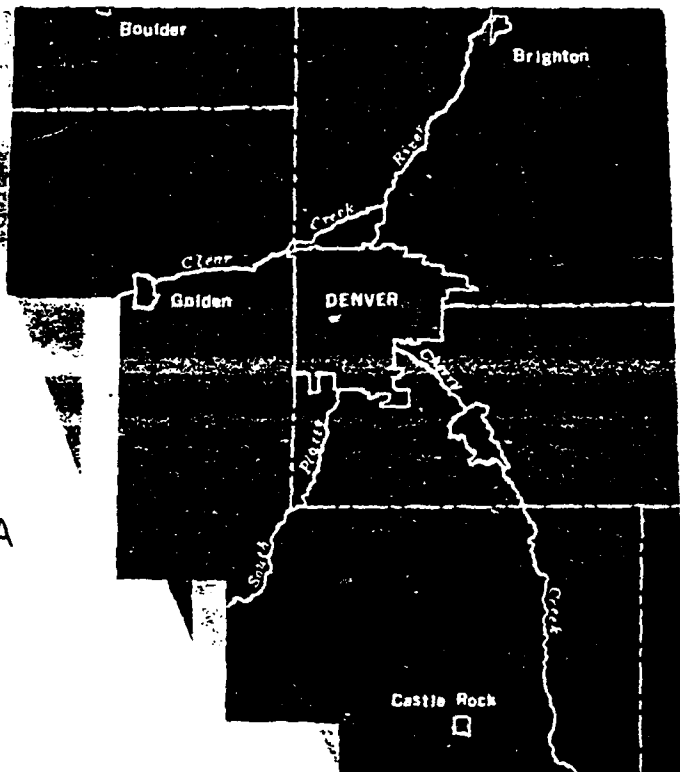
# GROUND WATER

BASIC DATA REPORT NO. 15

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HYDROGEOLOGIC DATA  
OF THE DENVER  
BASIN, COLORADO



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COLORADO WATER CONSERVATION BOARD  
BASIC-DATA REPORT NO. 15

HYDROGEOLOGIC DATA OF THE DENVER BASIN, COLORADO

BY

JAMES A. McCONAGHY, GEORGE H. CHASE,  
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U.S. GEOLOGICAL SURVEY

PREPARED BY  
THE UNITED STATES GEOLOGICAL SURVEY  
IN COOPERATION WITH  
THE DENVER BOARD OF WATER COMMISSIONERS  
AND  
THE COLORADO WATER CONSERVATION BOARD  
DENVER, COLORADO

1964

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## Introduction

This report is intended to serve two purposes: (1) To make available basic ground-water data useful in planning and studying water-resources development and (2) to supplement an interpretive report that will be published later.

The records were collected during the investigation of the geology and ground-water resources of the Denver Basin, Colo., made by the U.S. Geological Survey, 1956-63, in cooperation with the Denver Board of Water Commissioners and the Colorado Water Conservation Board. The interpretive report written by George H. Chase, James A. McConaghy, Edward D. Jenkins, and Robert Brennan, will be published later.

The well and test-hole numbers in the tables indicate their locations, as shown on plates 1 or 2. The numbering system is based on the U.S. Bureau of Land Management's system of land subdivision. The number shows the location of the well or test hole by quadrant, township, range, section, and position within the section. A graphic illustration of this method of well location is given in figure 1. The capital letter at the beginning of the location number indicates the quadrant in which the well is located. Four quadrants are formed by the intersection of the base line and the principal meridian--A indicates the northeast quadrant, B the northwest, C the southwest, and D the southeast. The first numeral indicates the township, the second the range, and the third the section in which the well is located. Lowercase letters following the section number locate the well within the section. The first letter denotes the quarter section, the second the quarter-quarter section, the third the quarter-quarter-quarter section, and the fourth the quarter-quarter-quarter-quarter section. The letters are assigned within the section in a counterclockwise direction, beginning with (a) in the northeast quarter of the section. Letters are assigned within each quarter section, quarter-quarter section, and quarter-quarter-quarter section in the same manner. Where two or more locations are within the smallest subdivision, consecutive numbers beginning with 2 are added to the letters in the order in which the wells or test holes were inventoried. For example, C4-68-15daaa2 indicates a well in the northeast quarter of the northeast quarter of the northeast quarter of the southeast quarter of sec. 15, T. 4 S., R. 68 W., and shows that this is the second well inventoried in the quarter-quarter-quarter-quarter section. The capital letter C indicates the township is south of the base line and that the range is west of the principal meridian.

This report should be most useful in predicting conditions likely to be encountered when drilling a new well. The proposed drilling site can be located on plates 1 or 2, and the records of nearby wells can be examined. Other significant factors can be determined from tables 1 through 9 as follows: whether it is practical to drill deeper in search of water; the success or failure of nearby wells; type of materials likely to be penetrated by the proposed well; physical properties of formation materials; fluctuations and trends of the water table; and quality of water in relation to the intended use. These and other uses of the report will be facilitated upon release of the interpretive report.

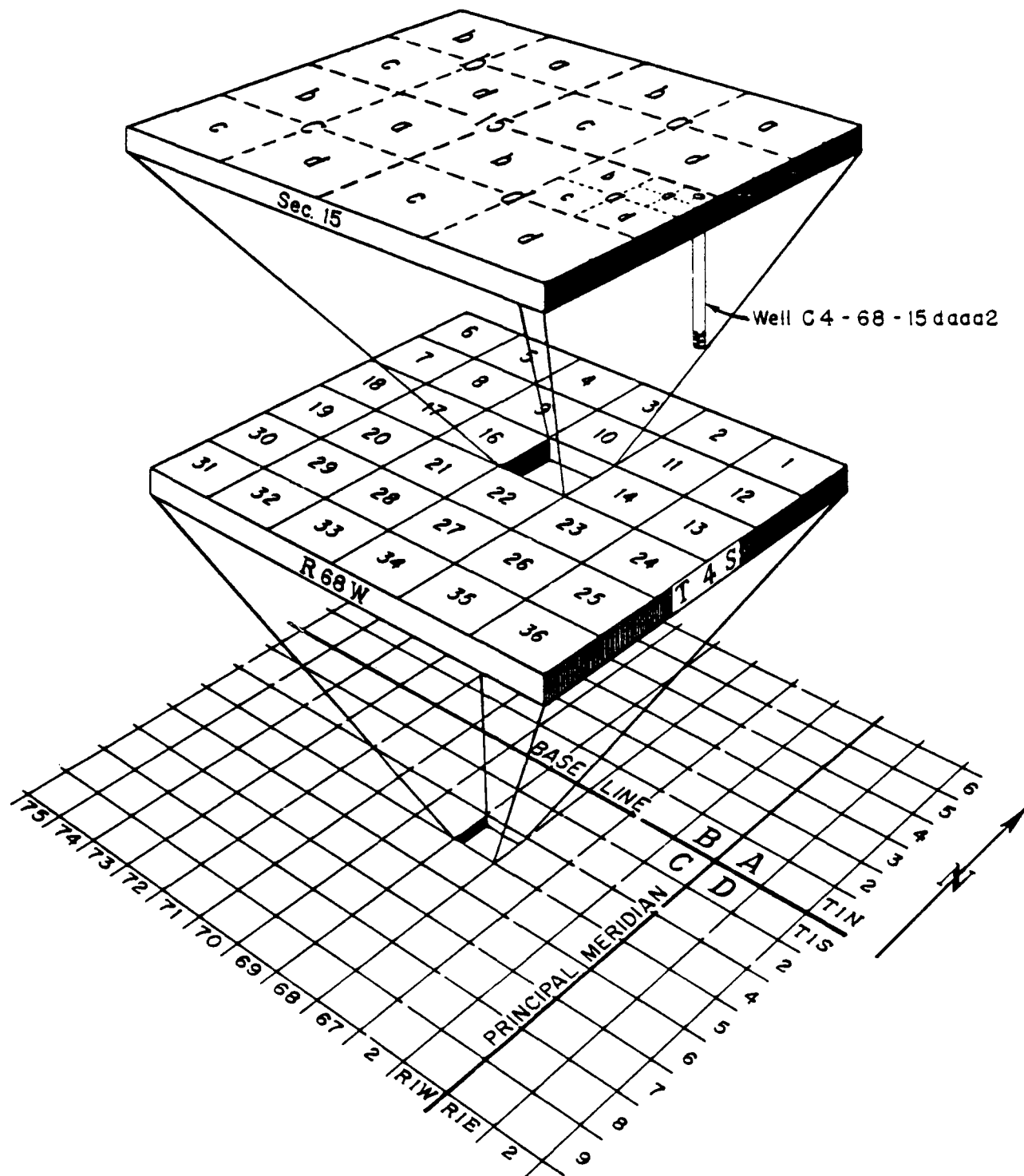


Figure 1.— System of numbering wells and test holes in Colorado.

Table 1.--Generalized section of the geologic units

Era	System or Period	Series	Geologic unit	Representative thickness (feet)	Physical character	Water supply
Cenozoic	Quaternary	Recent	Post-Piney Creek alluvium	0-10	Mostly reworked fairly clean sand and gravel in modern flood plains. Overlain in places by a few feet of dark humus-rich sandy silt	Yields small to moderate quantities of water in the principal valleys. Partly drained in upland valleys. Provides catchment for recharge to underlying gravel.
			Colluvium	0-5	Mixed sand, silt, pebbles, and cobbles. Forms veneer on most slopes. Includes fan deposits thicker than 5 feet in places along the west side of the basin	Thin deposit generally above water table. Locally yields small quantities of water.
			Piney Creek Alluvium	0-20	Well-stratified clay, silt, and sand; contains thin lenses of sand and fine gravel. Forms low terraces about 10 to 25 feet above present stream beds and fills shallow upland valleys. Locally very calcareous	Yields very small to moderate quantities of water. Quality differs, depending upon the sources of recharge. Generally rather mineralized.
			Eolian sand	0-40	Very fine to coarse poorly sorted sand and silt; forms extensive sand hills, which are generally stabilized.	Generally lies above water table; locally yields small quantities of water. Important as catchment and infiltration medium for recharge to underlying aquifers.
			Pre-Piney Creek alluvium	0-10	Silty to cobbly stratified alluvium lying unconformably on older terrace deposits	Mostly above the water table; yields little water.
			Broadway Alluvium	0-20	Pebbly well-bedded well-sorted granitic gravel. Forms terraces about 25 to 40 feet above stream beds. Pebbles mostly less than 1 inch in diameter	Yields large quantities of water where enough of it is saturated. Quality controlled principally by sources of recharge.
			Younger loess	0-20	Windblown massive, compact silt with some sand vertical cut banks	Yields little or no water; hinders recharge to underlying sediments.
			Louviere Alluvium	0-60	Granitic coarse gravel; contains abundant cobbles, which form thick beds along the principal valleys. Pebbly alluvium with cobble layers near base and deformed silt layers in upper part. In many places stained with iron and manganese	Yields large quantities of water, where saturated thickness is sufficient, and small to moderate quantities from dissected remnants, especially where these overlie bedrock. Quality controlled principally by sources of recharge.
			Slocum Alluvium	0-30	Generally moderate reddish-brown silty clay and silty sand with lenticular beds of pebbles and silt. Contains much caliche, reworked loess, and reworked materials from older formations	Yields only very small quantities of water. Quality is generally poor.
			Older loess	0-5	Clayey silt, which forms vertical cut banks. Reddish-brown soil of Sangamon(?) age developed in upper part	Yields little or no water. Hinders recharge to underlying sediments.
			Verdos Alluvium	0-20	Coarse gravel and sand underlying high terrace remnants. Contains cobbles in sandy matrix, caliche, and volcanic ash	Yields moderate to large quantities of water in Beebe Draw, elsewhere, generally partly drained. Water may contain excessive fluoride. Volcanic ash and silt below water table locally reduce yields.

Table 1.--Generalized section of the geologic units--Continued

Era	System or period	Series	Geologic unit	Relative thickness (feet)	Physical character	Water supply
Cenozoic	Quaternary	Pleistocene	Rocky Flats Alluvium	0-50	Very coarse gravel, cobbles and boulders; covers Rocky Flats northwest of Denver and highest terrace remnants elsewhere. Many cobbles and boulders deeply weathered; even quartz has weathered "rinds." Locally has reddish-brown clay matrix and sand lenses. Many particles are lime-coated.	In most places partly or wholly drained. Locally yields small quantities of water.
			Castle Rock Conglomerate	30-50	Firily cemented coarse-grained conglomerate and sandstone. Maximum thickness about 300 feet.	Generally well drained and poorly permeable but may yield very small quantities of water.
		Paleocene		Upper part 300-1,100	Gray, brown, dusky-yellow, and greenish-gray shale, clay, silt, shale, and siltstone; contains many lenticular beds of light-colored conglomerate, sand, gravel, and sandstone in most of the Denver basin. In many places a conglomerate zone lies from 200 to 400 feet above the base of this part; this zone is called the upper conglomerate in this report. The upper conglomeratic zone contains such andesitic material west of Denver but contains predominantly arkose or quartzose sediments elsewhere in the basin. Lenticular beds of coarse arkose gravel also lie from 200 to 400 feet above the upper conglomerate, especially south of T. 58. Beds of coarse materials in a similar stratigraphic position on Green Mountain are largely drained. Andesitic material is common in the vicinity of Green Mountain and the Table Mountains, southwest of Denver, and in isolated lenses elsewhere in the basin. Beds of very sandy limestone, lignite, coal, carbonaceous clay, carbonaceous silt, and carbonaceous shale are common. Toward the top of this unit south of Denver are beds of rhyolitic tuff and lava. In the Green Mountain Table Mountains area, it contains beds of more basic lava and tuff.	Yields very small to moderate quantities of water. Locally water is moderately high in iron and radioactive constituents. Upland beds drained in places. Locally moderately high concentrations of dissolved solids and objectionable odors from carbonaceous beds. Few test quality of water from the andesitic and lignitic beds. The permeability of the upper conglomerate is greatest south of T. 58, but also is considerable locally east of R. 614. The upper conglomerate generally yields the greatest quantities obtained from this part of the formation, but the lenticular gravel beds from 200 to 400 feet above the upper conglomerate zone locally yield moderate amounts of water.
Cenozoic and Mesozoic	Tertiary and Cretaceous	Upper Cretaceous	Dawson Formation		White to yellow arkosic sand, gravel, and conglomerate interbedded with gray and green and red shale and clay. Sand, gravel, and conglomerate beds are thicker, more numerous, and more persistent than in the upper part. The thickest and most extensive zones of coarse sediments are in the upper 700 feet of this part of the formation. The beds of coarse sediments become progressively thicker and more numerous toward the southeast part of the basin. In the Denver area two persistent zones of coarse materials are recognized. In this report these are referred to as the middle conglomerate and the lower conglomerate. Each of these conglomerate zones ranges in average thickness from 50 to 200 feet. The two conglomerate zones are separated by 50 to 200 feet of shale, siltstone, and silty sandstone.	Yields moderate quantities of water except near outcrops or where affected by local faulting or folding. Water is generally of good quality, is fairly soft, and has fairly low concentrations of dissolved solids.
				Lower part 400-1,400		

Table 1.--Generalized section of the geologic units--Continued

Era	System or Period	Series	Geologic unit	Representative thickness (feet)	Physical character	Water supply
Mesozoic	Cretaceous	Upper Cretaceous			Blue-gray silty shale, contains thin silty sandstone, limestone, and lignite beds. Sandstone beds generally reticular except near bottom of the unit. Coal beds scattered throughout the formation, but the thickest and most persistent coal beds are in the lower half.	Yields very small quantities of water of poor quality. Contains much hydrogen sulfide, iron, and methane.
			Laramie Formation	400-600	Salt and pepper sandstone, mostly medium grained, massive, very extensive. Well cemented along the west side of the basin, weakly cemented to marly compacted elsewhere. Coalesces with A sandstone and Milliken Sandstone Member locally, especially in the Louisville-Niobrara area.	Yields moderate quantities of water, usually of good quality except in areas of local geologic structure, where it may have troublesome amounts of methane, hydrogen sulfide, iron, or fluoride.
			A sandstone	60-80	Sandstone beds similar to those of the B sandstone but generally finer grained. Yellowish on weathered surfaces. In most places consists of thin sandstone beds interbedded with siltstone and shale but locally massive. Locally contains a little coal, especially on the west side of the basin.	Yields very small to moderate quantities of water, depending upon whether the unit consists chiefly of shale and silt or of sandstone. May have troublesome amounts of methane, hydrogen sulfide, iron or fluoride, especially in areas of local geologic structure.
			Fox Hills Sandstone Member	10-100	Fine-grained quartzose, locally silty sandstone, siltstone, and shale; contains biotite and muscovite and a large calcareous sandstone concretions. Weathered exposures characteristically yellow to yellowish green. Locally contains a little coal. Generally soft, friable. Lower part locally interbedded with silt and shale.	Yields very small to moderate quantities of water, depending upon whether the unit consists chiefly of sandstone or of shale, silt, and silty sandstone. Iron and fluoride locally troublesome.
			Transition zone	60-120	Interbedded very silty fine-grained sandstone and soft fine-grained sandstone and shale, becoming more shaly toward the bottom of the interval.	Not developed as a separate aquifer. Yields very small quantities of water of poor to unpotable quality.
			Pierre Shale	900-1,100	Gray, blue, and black shale, sandy shale, and locally silty sandstone, with thin limestone lenses and bentonitic seams.	Generally yields no water except for very small quantities of highly mineralized water near outcrops. In some places potable water obtained from fractured or weathered zones or from sandstone lenses near their outcrops.
			Niobrara Formation	5,000-7,500	Black to gray calcareous shale, gray to greenish-white limestone and white chalky marl.	Fractured limestone locally will yield very small quantities of rather highly mineralized water.
			Bentley Shale	100	Black brittle shale, persistent bentonite seams, chalky limestone, and thin sandstone near top.	Fractured shale near outcrop yields very small to small quantities of highly mineralized water.
				500		

See footnote at end of table.



Table 1.--Generalized section of the geologic units--Continued

Era	System or Period	Series	Geologic unit	Representative thickness (feet)	Physical character	Water supply
Mesozoic	Cretaceous	Lower Cretaceous	Dakota Group	100	Gray-white fine- to medium-grained friable to firm sandstone; thin bedded to massive, ripple marked; foras hogbacks	Yields small to moderate quantities of water near outcrop areas. Water locally contains excessive iron.
					Dark-gray silty carbonaceous shale; locally fossiliferous; contains fine clay	Yields no water.
				60	Gray coarse-grained sandstone; locally conglomeratic and crossbedded	Yields small to moderate quantities of water in and near outcrop.
	Jurassic	Upper Jurassic	Morrison Formation	300	Vaticolored silty sandstone, marlstone, limestone, red silty mudstone, and local gypsum beds. Purple, red, gray, greenish gray, green, and yellow colors common	Not developed as an aquifer. Sandstone beds might yield small quantities of rather highly mineralized water close to outcrops.
			Salston Creek Formation	120	Principally varicolored claystone, limestone, and calcareous siltstone, commonly gray, grayish red, or grayish orange. At the base is a 5-foot bed of fine- to medium-grained calcareous sandstone	Not developed as an aquifer. Basal sandstone bed might yield small quantities of water close to outcrops.
Paleozoic	Triassic(?) and Permian(?)		Lykins Formation	400	Interbedded soft sandstone and sandy shale with thin limestone beds	Not developed as an aquifer.
			Lyons Sandstone	200	Friable crossbedded quartzose sandstone	Yields small to moderate quantities of water near outcrop.
	Carboniferous	Pennsylvanian	Fountain Formation	1,100	Crossbedded very arkosic conglomeratic sandstone, interbedded with mudstone and siltstone. Foras Red Rocks Park and amphitheater and Foxborough Park	Yields small quantities of water near outcrop. Water may contain excessive iron and fluorides; may be excessively mineralized in faulted areas and may be contaminated with dead oil, especially near the base.
					Granite, gneiss, schist, quartzite, pegmatites, quartz veins, and intrusive igneous rocks	Yields very small to small quantities of water from fractured and weathered zones. Water generally of fair to good quality; locally, however, may contain excessive amounts of iron and be somewhat hard.
	Precambrian		Crystalline rocks			

1/ Emmons, S. F., Cross, Whitman, and Eldridge, G. H., 1896, p. 73.

**Table 2.--Records of selected wells and springs**

Plate number: Number indicates plate on which well location is shown. Dash indicates well is outside project area and is not shown on plate.

Location number: See text for well-numbering system.

Map distance: East north and east west, respectively, from the SE section corner.

Geologic source: 1/ pc. Precambrian, Ft. Fountain Formation; Pl. Lyons Sandstone; Twp. Lykins Formation; Kib. Little Formation of the Dakota Group; Kib. South Platte Formation of the Dakota Group; Md. Dakota Group; Kb. Benton Shale; Mg. Pierre Shale; Kt. transition zone; Mfm. Milliken Sandstone Member of the Fox Hills Sandstone; Kib. 2 sandstone of the Laraine Formation; Kib. 3 sandstone of the Laraine Formation; Klu. upper part of the Laraine Formation; K1. Laraine Formation; Kdl. lower part of the lower conglomerate of the Dawson Formation; Kdlu. upper part of the lower conglomerate of the Dawson Formation; Kdlc. lower conglomerate of the Dawson Formation; Kdml. lower part of the middle conglomerate of the Dawson Formation; Kdmu. upper part of the middle conglomerate of the Dawson Formation; Kdmc. middle conglomerate of the Dawson Formation; Kdl. lower part of the Dawson Formation; TKdc. upper conglomerate of the Dawson Formation; Tkdu. upper part of the Dawson Formation; Tld. Dawson Formation; Qr. Rocky Flats Alluvium; Qv. Vedras Alluvium; Qb. older loess; Qc. Glucose Alluvium; Ol. Louville Alluvium; Qy. Younger loess; Qb. Broadway Alluvium; Qa. pre-Piney Creek Alluvium; Qes. eolian sand; Qp. Piney Creek Alluvium; Qc. colluvium; Qpp. post-Piney Creek alluvium.

Method of lift and type of power: A, airlift; C, centrifugal; Cyl, cylinder;  
J, jet; M, none; P, piston; Pch, pitcher pump; Port, portable pump; S, submersible;  
T, turbine; E, electric motor; G, gasoline engine; H, hand; St, steam engine;  
Tr, tractor; W, wind.

Use of water: AC, air conditioning; B, boilers; C, cooling; Com, commercial; Cons, construction; D, domestic; Dy, dairy; E, emergency or standby; F, fire fighting; G, greenhouse; Hosp, hospital; I, injection; J, jet; K, kitchen; L, laundry; M, machine; Man, manual; Manf, manufacture and industrial inst, institution; Irr, irrigation; Lab, laboratory; Lc, laundry; Lf, laundry; Lg, laundry; Lh, laundry; Lk, laundry; Lm, laundry; Ln, laundry; Lo, laundry; Lp, laundry; Lr, laundry; Lt, laundry; Lu, laundry; Lv, laundry; Lw, laundry; Lx, laundry; Ly, laundry; Lz, laundry; Ma, machine; Mb, machine; Mc, machine; Md, machine; Me, machine; Mf, machine; Mg, machine; Mh, machine; Mi, machine; Mj, machine; Mk, machine; Ml, machine; Mm, machine; Mn, machine; Mo, machine; Mp, machine; Mq, machine; Mr, machine; Ms, machine; Mt, machine; Mu, machine; Mv, machine; Mw, machine; Mx, machine; My, machine; Mz, machine; Na, machine; Nb, machine; Nc, machine; Nd, machine; Ne, machine; Nf, machine; Ng, machine; 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Ze, machine; Zf, machine; Zg, machine; Zh, machine; Zi, machine; Zj, machine; Zk, machine; Zl, machine; Zm, machine; Zn, machine; Zo, machine; Zp, machine; Zq, machine; Zr, machine; Zs, machine; Zt, machine; Zu, machine; Zv, machine; Zw, machine; Zx, machine; Zy, machine; Zz, machine.

✓ For the description of the physical character of the water-bearing formations see generalized section of the geologic units (table 1).

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
-	B1-66-31cdd4	50	2,890 V. Hornbuckle	..	31.8	120	Qb,Q1	T.E	Irr.Ot	210M	7.8	5	22.0	4,969.9	4-11-62 D, F, FD, WS
-	B1-67-19add4	75	30 E. Glarden.	1950	697	7 to 5	Klb	S.E	D,S	9R	..	172	5,102	5- -50 D1, Dri, FD, WSP	
-	36cdd4	90	2,790 G. Milliken	1955	21.1	48	Qb,Q1	T.E	Irr	400E	15.2	1	4,940	4-11-62 A160, D1, FD, PF12-24, ML(8-3-56)2.5	
-	B1-68-25bcb4	3,450	5,150 J. Snider	1950	720R	4	Klb	S.E	D,S	9R	..	100	5,150	5- -50 D1, Dri, FD, WSP	
1	C1-65-2dcdd4	20	1,370 H. Genereaux	1955	64R	18	Qb,Q1	T.E	Irr	660M	19	2	14.5	5,087.0	8- 8-57 A10C, 1461, DL, Dri, GE, L-28-58, T54, M(2-53)20
2	7cbba	2,500	4,650 J. Green	1956	186R	6 to 4	Kdmc	..	D	14R	64	3	5,052	12-15-56 R33, Dri, L, PF143-186	
2	7dbdc	1,560	.. do.	1947	26R	6	Qv	Cyl	S	..	..	..	5,058.7	4-11-62 Dri, ML(10-28-57)2.7	
1	11dbdc	3,550	1,310 D. Patton	1955	61.4	18	Q1	..	Irr	..	..	..	5,010	8- 1-57 A320, Dri, F	
1	11cddc	40	3,160 .. do.	1946	40.9	30	Q1	M	Irr	..	..	..	5,110.5	10-19-62 D1, U(1957), ML(10-28-47)15.1, ML(11-4-57)19.7, ML(7-30-57)19.2	

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet/hour)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
<b>CL-55-</b>															
1	11d5a	2,580	D. Patton	1942	63R	18	Ql	T.E	Irr	..	..	17.9	5,105	8-1-57	A160, Dri, F
1	11d5c	1,780	do.	1943	40.9	18	Ql	T.E	Irr	..	..	17.3	5,093.0	8-1-57	A40, Dri, F; P20
1	11d5d	1,360	do.	1955	62.5	18	Ql	T.E	Irr	1,095M	18.6	1/4	5,115.0	8-1-57	A100, B56, Dri, F; T50
1	11d5b	1,310	do.	1948	62.4	18	Ql	T.E	Irr	755M	16.0	10	5,115	7-10-57	A160, Dri, F; T54
1	14b5d	4,000	do.	1943	43R	30	Ql	N	Irr	345M	10.7Ry	1/4	5,118.0	8-1-57	D; P20; U(1951)
1	14b5c	1,150	do.	1955	62.2	18	Ql	T.E	Irr	..	..	34	5,120	8-1-57	A40, Dri, F
1	14b5e	2,750	do.	1940	43R	24	Ql	N	Irr	..	..	20.5	5,123.0	8-1-57	Dri, P20; U(1957)
1	14b5d	1,450	E. Madigan	1950	70.0	18	Ql	T.E	Irr	745M	13.4	3/4	5,142.0	7-11-57	A120, Dri, F; T54
2	15baab	5,140	P. Wagner, Sr.	1960	248R	4	Tkdu	S.E	D	12R	24	..	5,219	11-10-60	Dri, L; Tch164-228
1	21caaa	2,420	R. Uyehara	1950	57R	6	Qv	..	D	810R	2	1-1/2	5,148	3-22-56	B54, Dri, L; P239-57
1	21cdaa	1,070	do.	1956	58.5	18	Qv	T.E	Irr	..	..	28.3	5,157	7-29-57	A80, Dri, L; P239-57
1	21cdad	10	do.	1955	58.8	18	Qv	T.E	Irr	835M	22.5Ry	1/4	5,162.9	11-4-57	A80, B80, DL; Dri, F; Lo30-60; T54
1	26badd	4,100	J. Martin	1954	63.2	18	Qv	T.E	Irr	650M	11.9	1/4	5,172.0	7-29-57	A110, Dri, T55
1	26bdaa	3,650	J. Sutton	1949	63.9	18	Qv	T.E	Irr	365M	27.0Ry	1/4	5,168	7-30-57	A160, Dri, F; T54
1	26badd	2,820	do.	1955	68R	6	Qv	..	D	820R	2	1-1/2	5,172	8-24-55	B67, Dri, L; P248-68
1	26caaa	2,600	do.	1955	62.9	18	Qv	N	Irr	..	..	33.5	5,175.0	7-30-57	Dri, U(1953-57)
1	26cadd	1,450	do.	1955	66R	18	Qv	T.E	Irr	600R	12	1/4	5,180	9-26-56	A160, B63, DL; Dri, GE; Lo36-66
1	26bdad	1,320	J. Martin	1951	64.8	18	Qv	T.E	Irr	389M	10.1	1/4	5,186.0	7-29-57	A110, Dri, T55
1	26dcde	30	do.	1950	63.9	18	Qv	T.E	Irr	1,045M	15.6	5	5,188.5	7-29-57	A110, B66, Dri, F; ML(11-4-57)29.5
2	27dadd	75	Box Elder Farms	1950	166R	6 to 4	Tkdu	..	D	815R	45	3	5,184	12-11-56	Dri, L; P2123-166
2	31baba	5,200	do.	1953	380R	6 to 4	Tkdu, Kdmc	..	D	..	..	..	..	..	DL; Dri, P242
<b>CL-66-</b>															
1	1baac	4,650	F. Diamond	1944	70R	18	Qv	T.E	Irr	..	17.8	1/4	4,960	12-5-57	A135, Dri, Su; MS
1	1cbcc	2,220	D. and J. Kilker	1953	65R	18	Qv	T.E	Irr	1,520M	..	..	5,042	4-11-62	A160 (with lcccb); Dri, GE; Lo45-65; Su; ML(12-11-57)23.7
1	1ccbc	710	F. Dryer	1956	56.9	18	Qv	T.E	Irr	..	..	..	5,035.0	4-11-62	A60, Dri, ML(11-7-57)11.9
1	1cccb	400	D. and J. Kilker	1956	65R	16	Qv	T.E	Irr	..	..	..	5,042	..	A160, Dri, P249-65; Su
2	4cdcd	120	J. Devanthal, Jr.	1955	160R	6 to 4	Kd1c	S.E	D	820R	85	3	5,075	10-9-59	B15, Dri, L; Tch120-160; ML(8-55)100
2	4dced	900	Papas Rexall Drug	1955	188R	6 to 4	Kdmc	..	D	815R	10	1	5,110	6-20-55	B42, Dri, L; Tch148-188
2	4dced	300	E. Shidlar	1958	720R	6 to 4	Kdmc, Kd1c	S.E	D	15R	..	..	5,105	9-10-58	B30, Dri, P2; L; P2160-180, 360-390. Well plugged back to 420 feet
2	5abba	5,200	M. Gettle	1954	257R	6 to 4	Kdmc	..	D	5R	..	..	5,005	3-8-54	Dri, L; Tch216-256
1	5bbbc	4,700	R. Mayeda	1954	33.2	48	Qb, Ql	T.E	Irr	800R	15	1	4,972	10-12-55	A60, B35, D; F; GE; L; P217-35
1	5cdad	30	J. Thimling	1954	11R	48	Qb	C.E	Irr	..	..	..	4,982.7	10-10-57	A10; Su
1	6aadd	4,800	J. Correntino	1940	30.3	48	Qb, Ql	T.E	Irr	485M	..	..	4,972	9-22-57	A50, D; F; P218-10
1	6abbc	4,700	Great Western Sugar Co.	1956	47R	40	Qb, Ql	T.E Ind, C, Pr	500R	12	24	20.0P	4,969	10-6-60	AT; B36, D; L; P220-15
2	6acac	3,350	L. Scepucek	1954	79R	6 to 4	Kd1c	S.E	D	820R	73	4	4,975	9-24-56	B38, Dri, L; P2678-739
1	6acdd	2,700	G. Van Houten	1953	41.3	48	Ql	T.E	Irr	480M	7.5	1/6	4,976	10-12-55	A40, D; F; P228-40; T57
1	6adcc	2,700	do.	1955	38.5	48	Ql	N	Irr	200R	..	..	4,975.8	4-11-62	U(1955-57); ML(10-12-55)20.3
1	6badd	4,680	Great Western Sugar Co.	1948	35R	60	Qb, Ql	T.E Ind, C, Pr	300R	15	..	..	4,971	10-6-60	Dri, P210
1	6bada	4,500	do.	1948	34R	12	Qb, Ql	T.E	D	100R	2	..	4,971	1-23-61	Dri, P210
1	6bbaa	2,500	Kuner-Empeon Co.	1940	16.7	180	Qb, Ql	C.E	C, Pr	100E	..	..	4,971	1-23-61	D; Su
1	6cbaw	2,600	do.	1940	21.1	18	Qb, Ql	C.E	C, Pr	100E	..	..	10.9	1-23-61	B2; Dri, Su
1	6cbaz	2,630	do.	1940	17.0	96	Qb, Ql	C.E	C, Pr	200E	..	..	4,960	1-23-61	B2; Dri, Su
1	6cbdc	1,450	J. Wells	1950	25R	30 to 14	Qb, Ql	J.E	Irr	50E	..	..	4,953.1	11-4-57	A3; D; F; ML(9-27-56)5.1

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
1	Cl-66-														
1	6cbdd	1,360	City of Brighton.	1955	358	18	Ob.-Q1	T.E	P8	600R	17	10	4,961	12-59	B28; Dr; L; Lot16-31
1	6dabd	1,160	do.	1947	18	18	Q1	T.E	P8	500R	3	17	4,977	12-59	Dr; Q1
1	6dbbc	2,040	do.	1956	42R	18	Q1	T.E	P8	400R	14	23	4,976	12-59	B41; Dr; Q1; L; Lot37-42; M8
1	6dabc	850	L. Lindsey.	1956	40R	6	Ob.-Q1	C.E	D	10R	1	25	4,977	6-19-56	B19; Dr; L; P22-40
1	7abac	4,830	City of Brighton.	1928	40R	144	Ob.-Q1	C.E	P8	1,000R	6	21	4,984	12-59	B21; Dr; M8; Pumped in battery with 7abbd and 7abdd2
1	7abac2	4,950	do.	1933	33R	48	Ob.-Q1	C.E	P8	600R	6	21	4,984	12-59	Dr; M8; P20-60
1	7abba	5,175	Gaylor's Store.	1959	60R	5	Ob.-Q1	T.E	AC	15R	17	18	4,982	4-20-59	Dr; L; M8
1	7abba2	4,800	City of Brighton.	1910	50R	144	Ob.-Q1	C.E	P8	1,000R	6	21	4,984	12-59	Dr; M8
1	7abba2	4,960	do.	1918	40R	144	Ob.-Q1	C.E	P8	1,000R	6	21	4,984	12-59	Dr; M8
1	7abbc	3,480	do.	1950	62R	48	Ob.-Q1	M	P8	350R	42	20	4,985	12-9-60	B31; Dr; P215-31; U(1960); Pumped dry in 15 minutes
1	7abbd	3,450	do.	1950	65R	18	Ob.-Q1	M	P8	..	..	18.8	4,985	12-9-60	Dr; Pumped dry in 15 minutes
1	7abbd	3,480	do.	1959	65R	18	Ob.-Q1	M	P8, E	1,300R	..	18	4,972	12-9-60	Dr; U(1960)
1	7abba	2,170	do.	1956	65.6	18	Ob.-Q1	T.E	P8	1,600R	..	23.3	4,988	8-11-56	Dr; M8(12-59)24
1	7abba	2,600	J. Sanders.	1955	60R	6	Ob.-Q1	T.E	Dr	810R	20	20	4,983	10-12-55	B57; Dr; L
1	7abba	1,150	C. Hove	1910	30R	72	Ob.-Q1	T.E	Irr	175M	2.8	22.9	4,990	9-18-56	Al; D; T55
1	7ccdd	50	M. Stewart.	..	24.7	96	Ob.-Q1	T.E	Irr	500R	3.5	21.1	4,994	10-14-55	Al; D; T55
1	7dacc	1,400	R. Sakata.	..	31.3	96	Ob.-Q1	T.E	Irr	295M	..	20.1	4,989.6	4-15-62	M40; Dr; P215; M8(10-19-55)18.5
1	7dacc	1,320	do.	1951	32.4	48	Ob.-Q1	T.E	Irr	430M	10.2	336	4,988	10-19-55	M40; Dr; P220; T55
1	7dbba	2,570	Sakata Bros.	1955	32R	6	Ob.-Q1	T.E	D	B25R	5	20	4,987	2-17-55	B30; Dr; L; P213-12
1	7dbcb	1,950	City of Brighton.	1951	55.9	18	Ob.-Q1	T.E	PS	680M	2.3	21.8	4,988	8-11-56	Dr; M8(12-59)16; M8
1	7dccb	520	do.	1957	61R	18	Ob.-Q1	T.E	P8	1,400R	10	22	4,992	2-16-57	B61; Dr; L; Q1; P242-62; T5; M8
1	7dccc	30	R. Mayeda	1951	34.1	48	Ob.-Q1	T.E	Irr	480M	4.9	1/4	4,992	10-12-55	A23; Dr; P218; T54
2	8dccc	50	J. Mattive.	1955	280R	6	Kdmc	S.E	D	10R	..	..	5,031	..	..
2	9cccc	75	E. Tepe	1955	167R	6 to 4	Kdmc	..	D	B10R	50	1	5,050	7-25-55	B26; L; Tchl15-167
1	11dccc	75	L. Baker	1955	64R	6	Qv, TKdu	..	D	B10R	20	40	5,080	3-24-55	M40; Dr; L; P243-63
1	11dcaa	1,150	J. Ball	1923	55R	72	Qv	T.E	Irr	650R	..	25.2	5,011	12-9-57	A50; Dr; T
1	11dbbd	750	K. Furuta	1947	55.5	16	Qv	T.E	Irr	460M	3.7	10	5,051	8-28-57	A37; Dr; T52
1	12abdc	4,280	L. Tracy	1955	160R	6 to 4	Kdmc	S.E	D	B20R	40	2	5,020	3-22-55	M44; Dr; L; P2130-160
1	12bbcb	4,520	J. McMorrow	1924	28.1	60	Qv	M	Irr	..	..	19.9	5,042	10-12-55	D
2	12bbcb2	4,500	do.	1938	137R	5 to 3	Kdmc	J.E	D	..	..	..	5,035	..	B65; Dr; L; P260
1	12bbcb3	4,550	do.	1954	62.8	18	Qv	T.E	Irr	985M	5.7	1/4	5,042.0	4-11-62	A70; B63; Dr; L; Lot33-63; T56; M8(10-12-55)20.3
1	12cbba	2,800	Mile High Duck Club	1954	70R	18	Qv	T.E	Irr	1,200R	..	27.3	5,041	12-9-57	A120; B63; Dr; P; L; Lot41-71; B61
1	12dbdb	1,800	K. Green.	1954	40R	18	Qv	T.E	Irr	800R	..	4.7	5,035	4-11-62	A75; B40; DL; Dr; Lot43-49.3; M8(12-5-57)14.9
1	12dccc	20	J. Green.	1956	57R	18	Qv	T.E	Irr	1,500R	..	4.7	5,038.0	12-9-57	A250; Dr; P
1	12dada	150	K. Green.	1954	52R	18	Qv	M	Irr	120R	34	2	5,052	6-14-54	B50; Dr; Q1; L; Lot39-54; U(1954-57)
1	13bbcd	4,100	S. Milliken	1954	64R	18	Qv	T.E	Irr	1,300R	21	2	5,041.5	4-11-62	A200; B62; Dr; P; L; Lot39-69; M8(10-28-57)3.9
1	14abbl	5,100	N. Flitner.	1946	63R	18	Qv	T.E	Irr	1,200R	..	23.5	5,059	12-10-57	A80; Dr; P; P240
1	14dccc	40	A. Green.	1956	74R	18	Qv	T.E	Irr	..	..	16.0	5,058.0	4-11-62	A130(with 2 wells); M71; B2; Dr; P; L; Lot41-71; B61
1	14ddcd	40	do.	1950	55R	18	Qv	T.E	Irr	..	..	15.8	5,062	12-9-57	Dr; P; B61; M8(10-28-57)17.0

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet/hour)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
2	15dcb	1,270	Hood-Shaw Estate.	1954	105R	6	Kdmc	..	D	10R	12	1	5,090	12-1-54	Dr; L; P185-105
2	17abbb	5,150	J. Case	1958	300R	6 to 4	Kdmc, Kdlic	S.E.	D	5R	135	2	5,035	11-22-58	B42; Dr; L; P244-290
1	17abcc	1,620	L. Darras	1955	43R	6	Ql	..	D	5R	16	2	5,028	3-8-55	B39; Dr; L; P223-43
1	17cbdc	1,450	.. do.	1947	27.7	36	Ql	T.E.	Irr	..	..	..	5,026.7	4-15-62	A110; By; L; P1; P18; ML(10-19-55)23.6
1	17cbdd	1,350	.. do.	1956	34R	48	Ql	T.E.	Irr	60M	7	24	5,029.0	7-23-56	DL; Dr; F
1	17ccdd	90	.. do.	1945	34.5	48	Ql	T.E.	Irr	60M	..	..	5,022.7	10-19-55	By; Dr; F; P18
1	17dcd	330	S. Muster	1954	38R	5	Ql	..	D	5R	23	1	5,035	8-11-54	B32; DL; Dr; P222-18
1	18aaac	4,900	A. Midow	1955	42R	18	Qb, Ql	T.E.	Irr	350R	..	..	4,993.4	10-14-55	A40; B30; Dr; GE; L; P120; Su
1	18aacc	2,650	T. Palizzi	1936	42.1	48	Qb, Ql	T.E.	Irr	1,450M	..	..	4,988.0	10-14-55	Dr; F; P15; T55
1	18abbb	5,100	C. Montandon	1956	43R	6	Qb, Ql	..	D	520R	1	1-1/2	4,994	3-5-56	B41; DL; Dr; P225-43
1	18bcab	3,950	.. do.	1955	62.2	48	Qb, Ql	T.E.	Irr	1,040M	9.1	1/4	4,997.8	10-18-55	B62; DL; Dr; F; GE; P140-62; T55
1	18bcd	2,650	.. do.	..	39.3	48	Qb, Ql	T.E.	Irr	640M	8	..	5,000.0	10-17-55	A67; DL; Dr; P120; Su
1	18bcd	2,650	A. Hattendorf	1923	35.0	96	Qb, Ql	C.E.	Irr	..	..	..	5,000	10-7-55	B35; DL; Dr; P19
1	18bdbb	3,950	R. Sakata	..	41.9	48	Qb, Ql	T.E.	Irr	770M	4.2	1/4	4,997.1	4-15-62	Dr; F; P20; T55; ML(10-18-55)21.3
1	18cacc	1,350	A. Hattendorf	1921	32.6	96	Qb, Ql	T.E.	Irr	645R	..	..	5,002.0	10-7-55	Dr; F; D; MSP
1	18cccc	50	.. do.	1920	46.0	to 48	Qb, Ql	T.E.	Irr	365M	..	..	5,006	10-7-55	A160; D; T55
1	18ccdd	50	.. do.	1954	35.3	to 48	Qb, Ql	T.E.	Irr	662M	..	..	5,005	10-7-55	Dr; F; P14; T55
1	18cdcc	50	.. do.	1949	39.5	48	Qb, Ql	Cyl, H	D, Ot	..	..	..	5,008.8	4-15-62	B41; D; WS
1	18dccc	1,320	J. Schloo	1955	45R	18	Qb, Ql	T.E.	Irr	775R	15	2	5,005	8-4-55	B45; GE; L; L20-45
1	18dbcc	1,320	.. do.	1940	34.5	48	Qb, Ql	T.E.	Irr	600R	15	1/4	5,002	9-29-55	A100(with 2 wells); D; F; P15
1	18dccc	50	.. do.	1918	27.7	..	Qb, Ql	C, Tr	Irr	550R	..	..	5,006	9-29-55	B28; D; F; P15
1	19bbcc	3,980	G. Morimatsu	1955	51.9	48	Qb, Ql	T.E.	Irr	80M	10.0	1/4	5,000	10-17-55	Dr; DL; P16
1	19bcaa	3,950	.. do.	1934	36.9	48	Qb, Ql	T.E.	Irr	480M	9.2	1/4	5,011.0	10-7-55	A75; D; F; P16; T51
1	19bccc	2,650	C. Burnett	1954	37.4	48	Qb, Ql	T.E.	Irr	..	..	..	5,017.0	12-11-57	Dr; F; Su
1	19bdcb	3,000	.. do.	1948	..	18	Qb, Ql	T.E.	Irr	..	..	..	5,014.0	12-11-57	A80(with 2 wells); Dr; F; Su
1	19cccb	550	H. Wellenkotter	1955	35.1	48	Qb, Ql	T.E.	Irr	250R	4.8	1/4	5,028	10-20-55	A40; D; F; P15; T54
1	19cccc	50	.. do.	1934	37.0	..	Qb, Ql	T.E.	Irr	455M	4.8	1/4	5,028.4	10-19-55	A40; D; F; P18; T55
1	19ccdd	400	.. do.	..	43.8	..	Ql	T.E.	Irr	..	7.4	1/4	5,031	10-18-55	A-25; D; F
1	19cdcc	150	M. Davis	..	43.2	48	Ql	T.E.	Irr	230E	..	..	5,049.0	10-23-55	By; D
1	20bbcc	4,900	J. Robbins	1946	35.0	18	Ql	T.E.	Irr	..	..	..	5,031	10-20-55	Dr; P19; Pumps dry in 15 minutes
1	20bcaa	3,950	Layton	1949	36R	60	..	..	Irr	..	..	..	..	..	..
1	20bcab	3,930	G. Kirby	1950	36R	to 20	Ql	T.E.	Irr	..	..	..	5,032	..	A20; Dr; P20; Su
1	20bcd	2,650	M. Davis	1949	27.0	48	Ql	T.E.	Irr	..	..	..	5,032	10-20-55	A17; D; F; P10; Su
1	20bdcc	2,650	.. do.	..	32.0	72	Ql	T.E.	Irr	..	..	..	5,035.0	10-19-55	A5; By; D; F
1	20cdcc	50	.. do.	..	34.4	48	Ql	T.E.	Irr	175M	..	..	5,042	10-20-55	D; U(1957)
2	20cddd	280	G. Bailey	1946	18JR	..	Kdmc	..	D	8R	34	..	5,053.1	4-15-62	By; D; F; ML(10-20-55)
2	21caaa	2,450	P. Schweger	1959	219R	6	Kdmc	S.E.	D, S	12R	..	..	5,050	3-18-46	B24; DL; L
2	21cbcc	250	Bart Lake School	1946	230R	..	Kdmc	..	Sch	8R	19	..	5,090	10-9-59	B11; Dr; L; P1179-210
2	21dccb	1,050	D. Barille	1946	170R	..	Kdmc	..	D	..	..	..	5,098	12-16-46	B15; Dr; L
1	21abba	5,050	R. Bergman	1954	66R	18	Qv	T.E.	Irr	..	..	..	5,088	..	DL; Lr
1	21ccab	1,700	C. Lambert	1954	86R	18	Qv	T.E.	Irr	1,000R	26	2	5,068.0	12-9-57	A200; Dr
1	29ccac	..	Not known	..	45R	..	Ql	..	Irr, B	..	..	..	5,101.0	12-13-57	A225; B80; Dr; L; L20-80
1	29ddcd	50	E. Mover	1957	30R	..	Ql	T.E.	Irr	..	..	..	5,092.4	10-28-57	A60; Dr
1	30aacc	4,260	B. Hillier	1948	43.6	36	Ql	T.E.	Irr	430M	5.6	1/2	5,052	10-24-55	A80; By; D; F; P10
1	30addd	2,700	B. Broyles	1955	38.8	48	Ql	T.E.	Irr	..	..	..	5,059.4	10-23-55	A31; D; F; P15; Su. Pumps dry in 25 minutes
1	30cdcd	300	L. Amend	1935	30.6	to 20	Ql	N	Irr, Ot	60R	..	..	5,068.7	4-15-62	Dr; P15; U(1955-57)

Table 2.-- Records of selected well and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
<b>CI-66-</b>														
1	30cdde	200	L. Amend.	1945	40R	24	Ql	T, E	Irr	350R	..	5,068	9-25-55	A70 (with 2 wells); Dr; P; P230-40
1	30cdde	20	do.	1954	48.8	16	Ql	T, E	Irr	45M	1/4	5,055	9-29-55	852; Dr; L; P; GE; P219-49
1	30dec	1,800	J. Knowlton	1946	41.3	48	Ql	T, E	Irr	270M	16.7	5,056.0	10-25-55	A180; Dr; P; P210; T56. Surgeon
1	30bed	1,500	do.	1954	35.2	48	Ql	T, E	Irr	140M	12.3	5,053	8-10-56	AT; 842; Dr; DL; L221-36; T54
1	32cdde	4,250	M. Dahlinger.	1954	16.0	7	Qv	M	S	..	..	5,090	10-8-62	WS
1	32cdde	1,170	G. Reasoner	1954	19.2	12	Qv	M	M	..	..	5,100.1	4-11-62	Dr; WL(10-11-55)16.3; WL(11-5-57)13.5
1	32cdde	1,000	do.	1955	30.0	18	Qv	M	Irr	..	..	5,099.0	10-11-55	Dr; P225-46
1	32cdde	500	Arden Bros.	1955	45.6	18	Qv	T, E	M	800R	..	5,100	10-10-55	845; Dr; L; P225-46
1	32cdde	80	do.	1924	42.9	94	Qv	M	M	..	..	5,110	10-10-55	D
1	32cdde	3,680	E. Dahlinger.	1913	25.0	48 to 6	Qv	J, E	S	..	..	5,095	10-6-55	D
1	32cdde	2,550	do.	1913	31.5	120	Qv	T, E	Irr	635M	..	5,102.5	11-5-57	Dr; T53; WL(10-6-55)23.6
1	32cdde	2,525	M. Dahlinger.	1941	36.2	43	Qv	T, E	Irr	380M	..	5,102	4-11-62	A40; Dr; P; T53; WL(10-11-55)22.8
<b>CI-67-</b>														
1	1ccde	1,250	Carlson Estate and Selzer	1956	30R	18	Qpp, Ql	M	Irr	400R	24	4,960	6-11-61	B25; Dr; GE; L; WL(7-16-56)6
1	1cdde	280	O. Haake.	1938	28R	36	Qpp, Ql	C, E	Irr	600R	..	4,963	6-11-61	D
2	1cdde	300	do.	1961	693R	6 to 4	Klu	S, P	D, Dy, S	18R	..	4,960	1961	B31; Dr; FD; H9-5; L; TCh625-693
1	1cdde	300	do.	..	25R	2	Qpp, Ql	C, E	Dy	25R	..	4,960	6-11-61	On; FD
1	1cdde	1,100	Not known	..	823R	18	Qpp, Ql	T, E	Irr	..	..	4,960	7-9-54	Dr; FD; WSP
2	3cdde	100	A. Ehrlich.	1954	823R	6 to 4	Klb	..	D	810R	25	5,175	7-9-54	Dr; L; P2782-823; WS
2	4ccde	350	Mountain View Water	1961	1,054R	8 to 6	Klb, K1a, K2a	S, E	P	115R	304	5,225	6-3-61	Dr; L; P2782-823; WS
2	5cdde	20	W. Degenhart.	1956	126R	6	Kdec	..	S	88R	35	5,170	10-11-56	Dr; L; P266-126
2	6cdde	1,030	G. Brown.	1954	765R	6 to 4	Klb	..	D	B10R	120	5,100	5-26-54	B15; Dr; L; P266-126
2	7cdde	750	C. Miller	1955	37R	6	Kdec	..	D	B10R	1	5,165	8-25-55	B14; Dr; L; P217-17
2	8bdde	2,750	E. Edstrom.	1956	112R	6	Kdec	..	D, S	85R	78	4,955	10-31-56	Dr; L; P240-52, 64-112
2	8bdde	1,600	Papenhelm and Zickler	1958	1,005R	6 to 4	Klb, K1a, K2a	S, E	D, S	16R	..	5,162	6-3-61	B22; Dr; H9-6; L; WL(1960)202. Yielded 12 gpm at depth of 400 feet
2	9abab	5,000	H. Ehler.	1955	86R	6	TKdu	..	D	86R	35	5,148	6-28-55	Dr; L; P266-86
2	10abab	4,440	do.	1935	70R	6	TKdu	..	D	84R	28	5,100	6-29-55	DL; Dr; P250-70
2	11abab	5,100	O. Heake.	1938	127R	6	Kdec	J, E	D, S	20R	40	5,062	..	Dr; GE; L; P237-79, 97-127
1	12cdde	2,660	J. Delventhal	1926	26.2	72	Ql	T, E	Irr	640M	9.3	4,973.5	4-15-62	Dr; P; T58; WL(9-19-56)14.2; WL(11-5-57)12.5
2	12cdde	2,700	C. Miller	1956	156R	6 to 4	Kdec	S, E	D	B15R	67	4,977	10-31-56	B40; Dr; H9-5; L; P246
1	12cdde	1,350	do.	1933	24.6	48	Ql	C, E	Irr, S	..	..	4,980	9-15-56	A200; Dr; U(1956)
1	12cdde	600	A. Krogh.	1955	30R	18	Qb, Ql	T, E	Irr	700M	7.6	4,969.0	4-15-62	Dr; GE; L; P215-30; WL(11-5-57)3.6
1	12cdde	30	do.	1918	12.9	120	Qpp, Qb	T, E	Irr	450R	2.5	4,980	9-19-56	Dr; Surgeon
1	12cdde	1,160	C. Miller	1910	40R	120	Qb, Ql	T, E	Irr, S	375E	3.0Ry	4,980	9-17-56	A200; Dr; P; 80; T58
1	12cdde	100	F. Cline.	..	29.0	90	Qb, Ql	T, E	Irr	..	..	4,990	9-26-56	A5-5; D
1	12cdde	180	C. Miller	1941	48R	48 to 6	Qb, Ql	T, E	Irr	..	5.2Ry	4,990	9-17-56	Dr; P; P211-41; T56
1	13cdde	5,100	D. Holston.	..	28.9	72	Qb, Ql	T, E	Irr	..	..	4,990	10-28-55	Dr; P; Pump day in 30 minutes
2	13cdde	4,880	Phillips Petroleum Co.	1956	156R	6 to 4	Kdec	..	SS	B15R	67	4,992	10-4-56	B40; Dr; Dr; P210-156
1	13cdde	4,450	O. Rose	1932	35.6	48	Qb, Ql	T, E	Irr	330M	5.8	4,992	9-19-56	A23; Dr; P; P27.5; T55
1	13cdde	4,030	L. Neff	1923	27.8	60	Qb, Ql	C, G	Irr, D	350R	..	4,993	10-28-55	A3; Dr; P; P46
1	13cdde	2,900	G. Quick	..	35R	48	Qb, Ql	C, G	Irr, D	..	..	5,000	8-5-62	Dr; WS
1	13cdde	3,125	O. Rose	1930	31.2	60	Qb, Ql	T, E	Irr	330M	10.3	4,999	9-26-56	Dr; P; P215; T53

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance--north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
1	11badc	4,070	A. Krough.	1956	248	48	Qb, Q1	T, E	Irr	56R	4	3.0	4,970	9-10-56	D; F
1	11badc2	4,220	H. Krough.	1956	258	6	Qp, Q1	..	S	..	..	14	4,970	2-6-56	B21; Dr; L; P213-25
1	11caaa	2,600	S. Correntino	..	31.7	120	..	..	..	..	..	..	..	..	..
1	11cada	1,800	.. do. ..	1950	30.6	60	Qb, Q1	T, E	Irr	290M	..	31.2P	4,996	9-27-56	D; F; P21; WSP
1	11cdcc	3,900	R. Copple	1956	298	60	Qb, Q1	T, E	Irr	850M	8.0	21.8	5,000.0	9-27-56	A60; B36; F; P212; T55
1	11odab	2,180	City of Brighton Cemetery	..	..	..	Qb, Q1	..	D	..	1	15	4,995	5-11-56	B26; DL
1	11idaca	1,660	E. Schnute	1955	31.6	48	Qb, Q1	T, E	Irr	425M	.88Y	25.1P	5,003	10-9-56	A7; D
1	11dbdb	1,670	.. do. ..	..	40.1	48	Qb, Q1	T, E	Irr	325M	5.38Y	28.6P	5,003.0	10-3-56	A30(with 2 wells); D; F; P212; T57
1	11dccc	20,260	F. Aichelman	1954	37.5	96	Qb, Q1	C, E	Irr	255M	6.8	26.4	5,003	10-4-56	D; F; P213; T55
2	20baed	4,200	B. Ginther	..	36.1	36	Qb, Q1	T, E	Irr	460M	8.2	20.3	5,000	9-17-56	A40; D; P216
2	20bdcb	3,000	High Plains Water Users Assoc.	1960	780R	..	Kmc, Kalc, Klu	Cyl, E	N	..	..	200	5,278	11-19-60	U(1930-60)
2	22badd	4,080	F. Carter	1960	1,200	8 to 6	Klb, Klc	S, E	PS	58R	315	295	5,321	5-27-60	Dr; EL; H16-11; L; Sa; Su; Tchl, 032-1, 200
1	23beab	3,820	T. Moir	1960	200R	..	Kalc	Cyl, W	S	10R	70	38	5,060	6-11-61	Dr; H8-6; L; P230-200
1	23ddda	4,000	Tashiro	1951	17.0	8	Qb	Cyl, W	..	..	..	9.3	4,995.6	4-15-62	Dr; WL(10-10-55)8.9; WL(11-7-57)8.9
1	24adcc	20	.. do. ..	1951	49R	18	Qb	T, E	Irr	..	..	..	5,018	12-11-57	PD
1	24adcc2	3,990	S. Brand	1910	39.0	72	Qb, Q1	T, E	Irr	490M	7.6	21.2	5,014.0	11-6-55	A80; Dr; F; P230
1	24adcc2	2,520	J. Warner	1911	34.8	36	Qb, Q1	T, E	Irr	430M	8.4	21.9	5,008.8	9-17-56	A30; B2; D; F; P20; P210
1	24adcc	2,650	Mail and Lottery	1911	34.8	120	Qb, Q1	T, E	Irr	..	..	20.5	5,017.0	12-11-57	A40; D; F
1	24bdcc	3,900	S. Brand	1921	35.0	120	Qb, Q1	T, G	Irr	670M	7.8	22.8	5,008.4	4-15-62	D; WL(9-7-56)21.1; WL(11-5-57)19.9
1	24ccce	80	E. Sharp	1957	38R	5	Qb, Q1	..	D	812R	1	23	5,018	2-7-57	B36; Dr; L; P220-40
1	24ccdd	20	.. do. ..	1950	41.9	24	Qb, Q1	T, E	Irr	..	..	22.9	5,019.0	10-5-55	Dr
1	24ccdd2	30	.. do. ..	1955	29.5	1.0	Qb, Q1	N	N	..	..	22.7	5,019	10-5-55	D
1	24cdcc	30	.. do. ..	1955	41.5	18	Qb, Q1	T, E	Irr	655M	12	21.4	5,020	10-5-55	B42; Dr; Dr; Lo20.5-41.5; T55
1	24dadc	1,340	J. Harding	1914	39R	48	Qb, Q1	T, E	Irr	635M	13.4	20.1	5,022	12-10-57	A40; D; F; P233-39; Su
1	24dadc	50	E. Schaefer	1914	46.0	..	Qb, Q1	T, E	Irr	..	..	17.8	5,024.7	11-5-57	A50; D; F; P216; Su
1	24dccc	40	Whitebread and Johnson	1917	44R	48	Qb, Q1	T, E	Irr	..	..	19.2	5,024.0	12-10-57	T55; WL(10-20-55)24.7
1	25abbb	5,050	L. Ehlen	1956	46R	6	Qb, Q1	..	S	B20R	2	26	5,022	2-7-56	A32; D; P229.5-44; Su
1	25accc	2,900	M. Tashiro	..	37.2	48	Qb, Q1	T, E	Irr	280M	..	23.5	5,031	10-4-55	B45; Dr; L; P226-46
1	25accc2	2,900	.. do. ..	..	36.7	48	Qb, Q1	N	Irr	..	..	..	..	10-4-55	A100; B2; D; Siphone from 25accc2
1	25adcc	2,950	E. Ehlen	1910	47.9	48	Qb, Q1	T, E	Irr	..	..	24.5	5,031	10-4-55	D; S1
1	25adcc2	2,900	.. do. ..	1910	36.6	48	Qb, Q1	T, E	Irr	..	..	42.5	5,046.0	10-25-55	D; F; T54
1	25adcc	3,980	C. Wall	1914	36.6	48	Qb, Q1	T, E	Irr	370M	..	29.9	5,029	10-25-55	A90(with 2 wells); D; F
1	25bdad	3,520	L. Ehlen	1942	29.8	6 to 5	Qb, Q1	Cyl, W	S	..	..	25.7	5,022	10-4-55	A40; D; T55
1	25bdad2	3,450	.. do. ..	1942	54.1	..	Qb, Q1	..	..	..	..	34.2	5,030	10-10-55	Dr
1	25bdadb	3,000	K. Sakaguchi	1954	35.2	48	Qb, Q1	T, E	Irr	675M	..	29.4	5,030	10-10-55	A88; D; P212; T56
1	25bdadb	3,000	.. do. ..	1954	54.1	48	Qb, Q1	T, E	Irr	375R	13	26.7	5,030	10-5-55	A25; D; DL; P21 OG; P220
1	25bccc	1,350	.. do. ..	1955	56.3	48	Qb, Q1	T, E	Irr	600R	..	25.6	5,034.4	10-5-55	A60; D; DL; G2; P219
1	25cbcd	1,600	L. Smith	1911	33.0	72	Qb, Q1	T, M	Irr	75R	..	24.7	5,030	10-12-55	A40; D; F; P26; U(1955)
1	25cdad	20	.. do. ..	1910	38.8	72	Qb, Q1	T, E	Irr	75R	16	31.6	5,043.0	10-5-55	A40; D; F; P220
1	25cdad2	100	.. do. ..	1948	40.6	48	Qb, Q1	T, E	Irr	..	..	34.8	5,043	10-12-55	A40; D; F; P220
1	25dabc	2,200	E. Ehlen	1955	39R	6	Q1	..	D	B10R	5	33	5,039	8-6-55	B38; DL; P219-39
1	25dcac	700	O. Bapat	..	53R	12	Q1	T, E	Irr	..	..	..	5,051	..	Dr; P220
1	25ddcb	400	.. do. ..	..	52.2	36	Q1	T, E	Irr	..	4.8	44.4	5,059	10-26-55	A60; B2; D; F; P220; T54
1	25dddc	60	E. Ehlen	1910	47.3	48	Q1	T, E	Irr	..	..	41.0	5,059	10-24-55	A20; B2; D; F; P215; T54

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use Yield of water	Drawdown (feet)(hour)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
1	Cl-67-26adda	4,000	L. Haldt.	1935	41.1	48	Qb, Ql	T, E	Irr	607M	23.2	5,022.5	10-4-55	D, P, Wsp
1	26adda	2,820	M. Yashiro	1935	36.5	96	Qb, Ql	T, E	Irr	900M	24.1	5,025	10-4-55	A80, D
1	26addb	3,700	J. Worthing	1956	25R	6	Qb, Ql	C, E	D	20R	14	5,010	3-24-56	B20, D, P, S-21
1	26addc	2,100	C. Ritchie	1945	27.2	48	Qb, Ql	C, E	Irr	..	16.2	5,019.4	11-5-57	D, W(8-1-55)19.3
2	26addb	2,540	B. Rice	1952	660R	..	Kmc, Kalc	..	D	..	..	5,011	..	B28, L
1	26addb	850	L. Smith	1954	56.2	48	Ql	T, E	Irr	450M	24.8	5,030	10-5-55	A40, P, P20, T56
2	32dbca	4,330	E. Cunningham	1960	435R	..	Kmc, Kalc	E, E	D, S	815R	150	5,172	9-1-60	H7-S, L, Tch359-305, 391-415
2	33cbca	1,880	A. Stepping	1960	230R	5 to 4	Kmc	..	D, Irr, L	18R	52	5,104	2-9-60	H7-41, L, Tch185-230
1	34addc	2,980	J. Masunaga	..	26.0	48	Qb, Ql	T, E	Irr	..	7.6	5,010	8-9-56	D
2	34addc	2,770	J. Johnson	..	13.3	72	Qb, Ql	C, E	Ot	..	11.5	5,020.3	4-10-62	D, U(1955-62)
2	34addb	1,970	L. Cain	..	280R	..	Kmc	..	D	..	..	5,021	..	Dr, Wsp
1	34addc	30	A. Adams	1938	9.6	62	..	..	..	..	..	..	..	..
1	34addb	450	R. Hilliard	..	17.2	90	Qb	C, G	Irr, Ot	..	3.6	5,021.2	4-10-62	A6, D, P, P27
1	35acea	3,050	M. Sandlin	1955	29.4	44	Qb	C, E	Irr	..	11.5	5,022	10-13-55	A21, D
1	35acea2	3,220	.. do.	1955	33.6	46	Qb, Ql	C, E	Irr	435M	23.4	5,034	10-13-55	D, P27-30, W(8-22-55)
1	35acac	2,700	E. Winfrey	..	28.0	48	Qb, Ql	C, E	Irr	185M	22.1	5,038	4-15-62	D, P27-30, W(11-5-57)17.5
1	35acdc	2,800	M. Sandlin	1937	34.5	46	Qb, Ql	C, E	Irr	485M	23.3	5,035	10-12-55	D, P29, T57
1	35acda	2,900	Royal Chemical Co.	1955	40R	18	Qb, Ql	C, E	Irr	80R	20	5,036	10-12-55	A58, D, P29
1	35adbb	3,120	J. Imatani	1955	38.9	48	Qb, Ql	T, E	Irr	..	22.2	5,034.5	10-6-55	B27, Dr, L, P215-27
1	35adbb2	1,100	.. do.	..	38.7	48	Qb, Ql	T, E	Irr	360M	11	5,034	10-6-55	A40, D, P210
1	35abac	4,780	P. Haselbush	1924	25.7	28	Qb, Ql	T, E	Irr	320M	15.1	5,030	10-9-56	AT, D, T55
1	35abcc	4,180	S. Karpinski	1929	23.9	48	Qb, Ql	C, E	Irr	235M	15.8	5,031	10-9-56	A10, A28, D, P, P216
1	35abcc	2,900	J. Stewart	1949	36.5	36	Qb, Ql	T, E	Irr	535M	24.1	5,035	10-12-55	A7, D, P, P215, T57
1	35abcc	1,350	E. Rucker	1935	24.9	36	Qb, Ql	T, E	Irr	..	17.2	5,030	10-13-55	D, P29
1	35cbdd	1,260	.. do.	1925	28.7	72	Qb, Ql	C, E	Irr	..	17.8	5,039	10-13-55	D, P212
2	35daaa	2,600	Henderson School	..	750R	..	Kmc	..	..	..	..	5,042	..	QM
1	35dbbb	2,620	W. Pagan	1933	27.9	48	Qb, Ql	C, E	Irr	..	..	..	..	..
1	35dcad	840	L. Morris	1940	40.0	36	Qb, Ql	J, E	Irr	..	24.3	5,035	10-13-55	A, 7, D
1	35dcbb	1,150	Carlson	1933	32.3	46	Qb, Ql	T, E	Irr	80M	30.8	5,051	11-15-55	A35, D, P, P212
1	35dcde	20	L. Morris	1936	39.9	72	Qb, Ql	C, E	Irr	115M	25.8	5,038	11-7-55	D, P, P29
1	35ddeb	1,260	.. do.	1935	35R	72	Qb, Ql	T, E	Irr	240M	30.0	5,051	11-15-55	D, P, P215
1	35ddec	30	A. Stadler	1945	41.8	30	Qb, Ql	T, E	Irr, D, S	..	..	5,049	..	D, P212
1	36adcd	2,680	H. Chapman	1954	42R	5	Ql	T, E	Irr, D	150M	37.6	5,058.6	8-19-55	A7, S, D
1	36dbcc	3,390	F. Dyer	1954	65.8	18	Ql	T, E	Irr, D	88R	24	5,060	3-23-54	B30, DL, Dr, P227-42
2	36dbcb	3,100	.. do.	1954	165R	6 to 4	Kmc	T, E	Irr, Ot	150M	53.4	5,068.6	11-4-57	AT, Dr, L, Tch129-165
1	36cbda	1,750	F. Madden	1937	50R	72	Ql	..	D	815R	46	5,062	2-34	B56, Dr, L, Tch129-165
2	4bcac	3,600	S. Osher	1951	5,630R	..	Ql	C, E	Irr	..	41.8	5,056.0	4-11-62	A20, U(1952-55)
2	5dcdd	200	P. Nordstrom	1958	855R	4	Klb	S, E	Ql	..	325	5,268	11-20-58	EL, H6, L, P2625-750. Hole plugged at 780 feet
2	9ubaa	5,100	G. Nordstrom	1958	832R	8 to 6	Klb, K1a	S, E	D	15R	260	5,488	10-6-58	Dr, P, D, H10-8, L, Tch700-832
2	10cbcc	2,280	C. Nordstrom	1959	809R	4	Klb	S, E	D	12R	235	5,268	2-17-59	Dr, EL, P, D, H6-5, L, P2695-780, WS
1	10cbcc2	2,100	.. do.	..	48R	5	Qp	J, E	D	..	12.6	5,181	2-11-59	Dr, P, D, WS
2	10ddda	400	M. Washington Water Users Assn.	1958	1,006R	8 to 6	Klb, K1a, K2a	S, E	P8	40R	300	5,170	8-13-58	Dr, EL, L, Tch728-997



Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet) above m.s.l.	Date of measurement	Remarks
2	Cl-68-12abaa	5,180	P. Elms.	1958	875R	6 to 4	Klb	.	D	10R	225	100	5,071.6	6-17-58	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		5,220	do	1955	410R	8 to 6	Klb, Klu	S, E	M	2R	30	6.5	5,072	4-10-62	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		700	W. Vogler.	1955	855R	6 to 4	Klb	S, E	D, Dy, S	10R	145	220	5,320	5-12-55	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		5,230	Ivy Bros.	1958	855R	6 to 4	Klb	S, E	D, Dy, S	10R	145	220	5,363	1-6-58	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		1,900	C. Foster.	1912	24.4	60	Klmc	T, E	Irr	400R	.	8.6	5,186	4-22-61	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		1,000	do	1956	22.34R	to 12	Klmc	T, E	Irr	350R	.	8.3	5,176	4-22-61	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		1,280	do	1950	35.5	48	Klmc	T, E	Irr	250R	.	10.3	5,183	4-22-61	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		400	do	1916	510R	5 to 4	Klb	Cyl, E	D	75R	.	.	5,181	4-22-61	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		5,050	K. Nelson.	1959	530R	6 to 4	Qs, Klmc, Klu	S, E	D	.	.	45	5,225	12- -59	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		4,730	Sunny Slopes Estates Mutual Water Corp.	1956	280R	6	Klmc	S, E	P8	11R	65	125	5,289	6-27-60	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
2	30aaad2	4,750	do	1959	1,045	8 to 6	Klb, Klmc, Kfm	S, E	P8	120R	336	125	5,290	4-21-59	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		4,250	E. Miller.	.	710R	5	Kl	M	M	.	.	113.9	5,345	4-4-57	Core, U(1957)
		4,250	do	.	820R	6 to 4	Klb	S, E	D	8R	120	335	5,345	10-4-54	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		280	R. Barber.	1958	1,099R	7	Klb, Klmc, Kfm	S, E	P8	75R	305	140	5,278	3-21-58	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		900	do	1956	1,100R	6 to 4	Klb, Klmc, Kfm	S, E	P8	820R	161	154	5,282	7-16-56	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		550	do	1954	900R	6	Klb, Klmc, Kfm	S, E	P8	23R	120	330	5,278	10-6-60	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		3,100	W. Koch.	1954	9,96R	6 to 3	Klmc, Klmc	Cyl, E	Oil	.	.	208	5,303	9-19-60	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		3,570	T. Branson.	1900	486R	10 to 6	Klmc, Klmc	Cyl, E	P8	10R	.	200	5,262	9-21-60	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		3,540	do	1946	525R	10 to 6	Klmc, Klmc	Cyl, E	P8	10M	.	200	5,262	9-21-60	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		2,150	Borra	1939	9,309R	9	Kp	.	Oil	.	.	94.5	5,510	9-22-60	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
2	Cl-69-7ccbd	970	Paclamar Farms	1960	709R	8 to 4	Klb, Klmc, Kfm	M	D, Dy, S	825R	200	108.9	5,545	9-22-60	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		4,920	do	1960	469R	8 to 4	Klb, Klmc, Kfm	S, E	D	9R	100	160	5,191	6-5-58	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		2,430	E. Swinburg.	1958	31R	6	Qp	.	D	10R	.	14	5,245	6-20-59	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		50	E. Dingreau.	1959	1,525R	8 to 6	Klb, Klmc, Kfm	.	Irr, L	.	.	80	5,191	11- -54	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		3,150	G. Waneke.	1954	14R	.	Qp	.	.	.	.	.	5,190	11- -54	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		3,220	do	.	480R	.	Klb	J, E	D	.	.	.	5,191	9-19-58	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		2,250	do	1952	650R	.	Klb, Klmc, Kfm	S, E	D, S	20R	175	150	5,240	9-19-58	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		2,220	A. Swen.	1956	1,011	6	Klb, Klmc, Kfm	M	Irr	.	.	259.0	5,425	3-5-57	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		1,000	A. Mitchum	1957	1,201	6	Klb, Klmc, Kfm	M	D, Irr	.	.	220.4	5,422	3-6-57	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		200	Broomfield Heights Mutual Water District	1958	1,022R	6	Klb, Klmc, Kfm	S, E	P8	91M	244	380.5	5,416	10-1-60	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
2	Cl-70-16bba	450	do	1955	1,053	8 to 6	Klb, Klmc, Kfm	S, E	P8	75R	325	168	5,348	3-12-55	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		4,550	T. Shanahan.	1924	1,000R	.	Kl, Kp	M	M	<1	.	3.6	5,438	3-7-57	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		3,600	J. Kane.	1957	150	5	Klb, Klu	.	D	.	.	79.8	5,560	4-19-57	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		2,350	P. Quintana.	1957	260	6	Klu	S, E	D	82R	.	97.7	5,953	4-18-57	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		2,650	Box Elder Farms.	1912	33.7	24	Qb, Ql	N	Irr	.	.	23.3	5,220.7	11-4-57	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		30	do	1918	54.7	24	Qb, Ql	M	Irr	.	.	36.5	5,265	7-25-57	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		150	do	1956	166R	6 to 4	Qb, Ql	.	D	815R	26	36	5,282	1-28-56	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		2,420	do	1910	33.8	48	Qb, Ql	T, E	Irr	75R	7.5 1/4	24.7	5,271.0	7-25-57	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		780	do	1910	60.7	18	Qb, Ql	T, E	Irr	185R	11.0 1/4	57.3P	5,290	7-23-57	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		50	do	1910	60R	18	Qb, Ql	T, E	Irr	200M	.	.	5,291	7-23-57	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
2	Cl-65-16bba	550	Anderson-State	1957	8,377	.	.	.	Oil	.	.	.	5,381	.	EL
		550	Union Pacific Rail-road-Austin	1957	9,477	.	.	.	Oil	.	.	.	5,381	.	EL
		2,650	Box Elder Farms.	1912	33.7	24	Qb, Ql	N	Irr	.	.	23.3	5,220.7	11-4-57	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		30	do	1918	54.7	24	Qb, Ql	M	Irr	.	.	36.5	5,265	7-25-57	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		150	do	1956	166R	6 to 4	Qb, Ql	.	D	815R	26	36	5,282	1-28-56	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		2,420	do	1910	33.8	48	Qb, Ql	T, E	Irr	75R	7.5 1/4	24.7	5,271.0	7-25-57	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		780	do	1910	60.7	18	Qb, Ql	T, E	Irr	185R	11.0 1/4	57.3P	5,290	7-23-57	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		50	do	1910	60R	18	Qb, Ql	T, E	Irr	200M	.	.	5,291	7-23-57	Dr, EL; MS-5; L; P6000-656, 666-742. Plugged at 742 feet
		550	Anderson-State	1957	8,377	.	.	.	Oil	.	.	.	5,381	.	EL
		550	Union Pacific Rail-road-Austin	1957	9,477	.	.	.	Oil	.	.	.	5,381	.	EL

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet/hour)	Depth of water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
2	C2-45-21d0db	350	J. and M. Monaghan	1953	900	6 to 4	TKdu, Kdmc, Kdic	T, E	D, S	816R	50	250	5,419	7-2-53	FD; L; P6660-880
1	21abac	4,650	Box Elder Farms	1930	45.7	18	Ob, Q1	T, E	Irr	134M	10.3Ry	1/4	5,285.0	11-4-57	A25; Dr; F; T54
1	21accd	2,660	do	1930	57.6	18	Ob, Q1	T, E	Irr	243M	15.1	1/4	5,285.0	7-18-57	A40; Dr; F; T54
1	21accd	2,660	do	1930	52.4	18	Ob, Q1	T, E	Irr	136M	7.5Ry	1/4	5,285	7-22-57	A40; Dr; F; T54
1	21dcb4	750	do	1946	64.6	18	Ob, Q1	T, E	Irr	150M	14.9Ry	1/2	5,314.0	7-15-57	A30; Dr; F; T54
1	21dcd4	50	do	1955	62.3	18	Ob, Q1	T, E	Irr	380M	11.9Ry	1/4	5,310	7-15-57	A60; B61; Dr; F; L032-62; T53
1	21dcd42	60	do	1930	47.7	24	Ob, Q1	N	Irr	250M	15.5Ry	1/4	5,205	7-25-57	Dr; U(1957)
1	21dcb4	680	do	1946	87.6	18	Ob, Q1	T, E	Irr	250M	15.5Ry	1/4	5,205	7-16-57	A80; Dr; F; T53
1	26acab	3,900	do	1952	65.9	18	Ob, Q1	T, E	Irr	200M	..	..	5,210	..	Dr; T54
1	26acdc	2,650	do	1951	55.3	18	Ob, Q1	T, E	Irr	200M	..	..	5,328.0	..	A180(with 26accd and 26acdc); Dr; T55
1	26acdd	2,650	do	1952	59.6	18	Ob, Q1	T, E	Irr	270M	..	..	5,328	..	Dr; T55
1	26adcc	2,650	do	1932	68.3	18	Ob, Q1	T, E	Irr	215M	..	..	5,324	..	Dr; F; T55
1	35abaa	5,200	do	1932	62.8	18	Ob, Q1	T, E	Irr	160M	..	..	5,341.0	11-4-57	A225; Dr; F; T55
1	35abaa2	5,200	do	1931	58.0	30 to 18	Ob, Q1	T, E	Irr	100R	9.0Ry	1/4	55.0R	8-16-56	Dr; F; T55
1	35abdd	4,100	do	1930	63.6	18	Ob, Q1	T, E	Irr	220M	..	..	56.2P	8-16-56	Dr; F
1	35acdc	2,900	do	1953	49.1	18	Ob, Q1	T, E	Irr	120M	4.5Ry	1/4	5,348	8-15-56	Dr; F
2	35cdcb	140	do	1953	248R	6 to 4	TKdu	..	D	820R	12	2	5,356	11-24-53	B16; Dr; L; Tch214-240; WS
1	35dabb	2,520	do	1952	62.2	18	Ob, Q1	T, E	Irr	490M	12.2Ry	1/4	5,350	8-10-56	Dr; T55
1	35dabb	2,640	do	1933	61.1	48	Ob, Q1	T, E	Irr	490R	..	..	18.8	10-12-33	D
1	35dcd4	650	do	1953	61.1	18	Ob, Q1	T, E	Irr	..	16.3Ry	1/4	5,362	8-10-56	Dr; T55
1	35dcd42	470	do	1930	50R	18	Ob, Q1	T, E	Irr	..	..	..	5,365	..	Dr; T55
1	35dcdc	50	do	1930	42.5	36	Ob, Q1	T, E	Irr	..	..	..	5,360.6	11-4-57	D; F; P833
1	35dcdc2	120	do	1955	47.3	18	Ob, Q1	T, E	Irr	450R	15	2	5,362	8-7-56	B45; Dr; F; GE; L; L033-48; T54
1	C2-66-3ebbb	2,500	E. Dahlinger	..	21.9	36 to 5	Qp	N	..	..	..	12.9	5,127.1	4-11-62	D; U(1955-57); WL(10-11-55)11.7; WL(11-5-57)12.6
1	5bdc4	3,100	E. Kallien	1940	51.0	18	Qp, Qv	T, E	Irr	660M	..	..	5,119.8	4-11-62	A50; Dr; T56; WL(10-10-55)35.5; WL(11-5-57)33.7; WL(10-11-55)30.1
1	6bbcd	4,250	C. Cotton	1915	42.2	48 to 24	Q1	T, E	Irr	..	..	31.1	5,099.5	4-11-62	D; T55; WL(10-11-55)51.1
2	6cccb	550	H. Mumford	1915	500R	6 to 4	Kdmc, Kdic	Cyl, W	..	..	..	80.3	5,130	8-18-55	Dr
1	6dccc	80	M. Rhodus	1945	59.4	36	Qv	T, E	Irr	245M	2.5	1/4	5,138.7	4-11-62	D; T55; WL(10-11-55)50.1
2	7cccd	100	A. Land	1950	865R	4	Kdmc, Kdic	T, E	D	20R	..	..	77.2	8-17-55	Dr
1	7dcdc	1,800	B. Hendrix	1950	55R	6	Qp	J, E	..	..	..	43.1	5,155.4	8-17-55	Dr
2	8bbbd	4,850	Box Elder Farms	1956	248R	6 to 4	Kdmc	..	D	B20R	113	2	5,145	1-4-56	B66; Dr; L; P8208-248
2	10acab	3,950	J. Martin	1953	288R	6 to 4	Kdmc	..	D	B20R	56	2	5,190	9-6-53	B25; Dr; L; Tch247-288
2	17dccc	150	L. Crawford	1918	455R	5	TKdu, Kdmc	Cyl, W	D, S	..	..	22.3	5,170	8-16-55	Dr; WS
2	18adad	3,400	G. Routzan	1955	300R	6	TKdu	Cyl, E	D	..	..	58.0	5,185	8-17-55	Dr; WS
2	18ddbc	950	C. Brandenberg	1955	760R	..	Kdmc, Kdic, Klu	N	..	25R	..	..	5,193	..	B40; Dr; L; Plugged
1	19ccdc	120	Rocky Mountain Arsenal	..	14.5	6	Qp	N	D	..	..	11.7	5,179.1	11-6-57	Dr; U(1955-60); WL(9-2-55)13.5; WL(4-3-56)12.2; WS
2	20aabb	5,130	do	1918	350R	4	Kdmc	N	D	..	..	37.4	5,170	9-2-55	Dr; OH(100-350); U(1955)
1	20adaa	3,900	do	1957	22.0	4	Qes	N	..	..	..	..	5,166	..	B17; Core; L; S4
1	20adad	3,620	do	1958	22.3	4	Qes	N	..	..	..	7.4	5,166.7	4-14-62	B18; Core; L; S4; Scl0.4-18.6; WL(3-6-58)7.5
2	20bbbc	4,850	do	..	173	3	TKdu	N	D	..	..	64.1	5,200	9-2-55	Dr; U(1955-60); WS

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth of water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
<b>C2-66-</b>															
2	21ccca	350 4,880	Halverson Bros.	..	700R	5	Kdmc, Kalc	Cyl. M	D, B	..	..	18.2	5,272.1	9-14-55	Dr; MS
2	21cccb	100 5,080	Fullenwider	..	..	..	..	..	..	..	..	..	..	..	Dr
1	30bbac	4,810 4,460	Rocky Mountain Arsenal.	1960	48.0	4	Qp	M	O	..	..	8.5	5,179.2	4-14-62	816.8, Core; GZ; Sc23.0-43.5; SL; WL(9-13-60)11.5
1	30bbac2	4,800 4,460	.. do ..	1960	20.0	4	Qp	M	O	..	..	9.0	5,179.7	4-14-62	819.0; Core; GZ; Sc10.0-16.5; SL
1	30cbbc	2,100 4,920	.. do ..	1957	43.0	4	Qp, TKdu	M	TH, O	..	..	4.8	5,190.1	4-14-62	816.0; Core; L; Sa; Sc11.5-13.5, 32.4-40.6; WL(10-1-57)6.7
1	30cbcb	1,200 5,050	.. do ..	..	12.1	6	Qp	M	M	..	..	10.1	5,199.5	9-2-55	Dr; MS
1	31bbac	4,800 4,600	.. do ..	..	28.7	12	Qas	M	M, O	..	..	21.7	5,223.6	11-6-57	Dr; WL(9-1-55)23.7; MS
1	31bbda	3,900 2,750	.. do ..	1957	28.0	4	Qas	M	TH, O	4R	..	2.5	5,232	10-17-57	819.3; Core; L; Sa; Sc17.1-19.3
1	31dacc	1,640 670	.. do ..	..	41.2	30	Qp	M	M	..	..	16.5	5,252.8	9-1-55	Dr; MS. Destroyed 1956
1	32adbc	3,370 1,000	.. do ..	1957	30.0	4	Qas	M	TH, O	..	..	29.1	5,278	4-14-62	822.1; Core; L; Sa; Sc19.5-21.6
1	32dcdd	50 1,450	.. do ..	..	49.2	24	Qp	M	M, O	..	..	32.7	5,295.1	4-14-62	Dr; WL(9-1-55)31.2; MS
2	35dddb	600 600	J. Rouse	..	..	..	..	..	Oil	..	..	..	5,334	..	EL
<b>C2-67-</b>															
1	1aada	4,440 50	F. Makata.	1940	28.4	48	Ol	T, E	Ir	235M	10 1/4	11.5	5,084.0	11-5-57	By2; D; MSP
1	1adba2	4,400 50	.. do ..	1940	30.7	36	Ol	M	Ir	..	..	18.0	5,084	9-29-55	By; D; SL
2	1abab	5,180 1,680	O. Foley	1954	370R	6 to 4	TKdu, Kdmc	T, B	D	810R	2	59	5,075	6-24-54	B38; Dr; L; Tch330-370
1	1adba	3,650 800	.. do ..	1955	29.0	18	Ol	T, B	Ir	83M	13.1 1/4	9.5	5,087	9-10-55	Dr; P214; T56
1	1adba2	3,650 780	.. do ..	1936	26.5	36	Ol	M	Ir	..	..	17.6	5,087	9-29-55	By3; D; P28; T56
1	1adba3	3,650 800	.. do ..	1944	29.9	36	Ol	M	Ir	..	..	17.3	5,087	9-30-55	Dr; SL
1	1adbb	3,920 1,220	G. Squires	1944	33.9	32	Ol	T, E	Ir	..	..	30.9	5,080	9-29-55	M3(with lbdhb); D; P212; Su
2	1bba2	5,200 3,550	J. Erger	1954	372R	6 to 4	TKdu, Kdmc	..	D	810R	20 1	20	5,058	3-31-54	B34; Dr; L; Tch288-372
1	1bbba2	4,200 3,620	.. do ..	1957	43R	6	Ol	T, E	D	87R	1	30	5,060	2-14-57	DL; Dr; P23-43
1	1bbdc	4,250 4,600	L. Camack	..	41.4	56 to 48	Ol	T, E	Ir	..	..	33.7	5,061	9-27-55	Dr; U(1955)
1	1bdbc	3,920 3,920	G. Squires	1954	39.9	18	Ol	T, E	Ir	..	..	30.7	5,063.0	9-29-55	Dr; P218
1	1bdbc2	3,920 3,900	C. and J. Erger	1954	40.0	18	Ol	T, E	Ir	245M	..	33.7	5,066.8	4-11-62	Al20; Dr; P210; Su; T53; WL(9-29-55)31.6; MS
1	1cccc	50 5,250	M. Rucker	1954	42.5	18	Ol	T, E	Ir	..	..	31.9	5,092.3	4-11-62	A70(with lcccc2 and lcccc3); 838; L; WL(8-23-55)33.6; WL(11-5-57)25.6; MS
1	1cccc2	20 5,060	.. do ..	..	42.8	72	Ol	T, E	Ir	..	..	36.1	5,092	9-27-55	Dr; Su
1	1cccc3	20 5,000	.. do ..	..	42.8	48	Ol	T, E	Ir	..	..	35.8	5,092	9-27-55	Dr; P27
1	2aaad	4,950 300	F. Sweany	1910	42.1	60 to 48	Ol	T, E	Ir	..	..	35.2	5,060	9-29-55	Dr; P29
1	2abaa	5,000 1,350	O. Riggs	1941	44.7	36	Ol	T, E	Ir	150M	..	37.4	5,060	9-28-55	Dr; T55
1	2acaa	3,900 1,500	M. Daniels	1937	40.9	48	Ol	T, E	Ir	165M	..	34.2	5,061	1-28-55	A40; D; F
1	2adab	3,920 650	F. Sweany	1955	40.0	48	Ol	T, E	Ir	..	..	31.1	5,059.0	9-29-55	A20; D; F; P29
1	2adbb	4,350 1,120	O. Riggs	1945	42.5	36	Ol	T, E	Ir	150M	..	33.6	5,060	9-28-55	A20; D; F; P216; WSP
1	2adbc	4,020 3,920	J. Miura	1955	41.0	48	Ob, Ol	T, E	Ir	300M	3.4 1/2	22.5	5,045.0	10-13-55	A20; D; F; U(1955)
1	2adbd	4,380 3,180	R. Fisher	..	35.6	48	Ob, Ol	T, E	Ir	800R	..	27.5	5,050	8-23-55	Dr; U(1955)
1	2cadc	1,480 3,280	L. Hopkins	1919	43.2	48	Ol	T, E	Ir	115M	..	35.0	5,061	9-16-55	A40; D
1	2cdac	50 1,250	B. Murray	1954	48.6	48	Ol	T, E	Ir	205M	4.8 1/4	31.3	5,076.7	11-4-57	A240; D; F; P218; Su; WL(9-15-55)46.1; WSP
1	2cdad	50 2,800	.. do ..	1954	83R	48 to 5	Ol	T, E	S	..	..	44.6	5,080	9-28-55	851; Dr; L; P230
2	2ddaa	1,220 150	F. Erger	1947	555R	..	Kdmc, Kalc	J, E	D	5R	75	..	5,080	..	Dr
1	2ddbb	1,300 1,200	.. do ..	..	42.9	18	Ol	T, E	Ir	250R	..	32.6	5,078	9-26-55	Dr; P29
1	2ddbb	350 450	.. do ..	1945	38.4	48	Ol	T, E	Ir	..	..	34.1	5,090	9-26-55	Dr; P29; SL(to addc)
1	2dddb	330 500	.. do ..	1944	42.0	36	Ol	T, E	Ir	..	..	35.1	5,090	9-26-55	By; D; P26
1	2dddc	50 450	.. do ..	1941	39.1	48	Ol	T, E	Ir	155M	..	34.0	5,093	9-26-55	Dr; P26; WSP

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
2	C2-67-3aabb	5,100	O. Sherwood	1958	284R	6 to 4	Tkdu	J.E	P8	10E	50	10	5,020	11-16-58	B45; Dr; L; P475-95, 140-160, 240-283, U(1955)
1	3adcb	3,200	Mann and Gartleson	1953	25.1	48	Ob, Ql	T.M	Irr	30R	1	15.2	5,026.8	8-19-55	D; U(1955)
1	3bdc	3,980	J. Himes	1943	36	36	Qpp, Ql	Port, G	Irr	30R	8	6.8	5,021	11-21-55	A35
1	3bdc	2,700	L. Wolpert	1943	19.3	34	Qpp, Ql	C, Tr	Irr	28R	6	5.5	5,025	11-21-55	A35, D; P
1	3bdc	3,320	J. Himes	1952	31.0	36	Qpp, Ql	Port, G	Irr	30R	4	4.9	5,022	11-22-55	A60 (with 3bdc); D; P410
1	3bdc	3,280	do	1952	20.5	36	Qpp, Ql	Port, G	Irr	30R	6	8.5	5,025.5	11-22-55	D; P410
1	3bdc	2,330	H. Ayers	1944	12R	36	Qpp	C, S	Irr	30R	1	4.9	5,027	11-10-55	D; W8
1	3bdc	50	G. Ferguson	1944	18R	36	Qpp, Ql	C, S	Irr	30R	1	4.9	5,032.6	11-10-55	D; W8
1	3bdc	100	do	1944	10.8	48	Qpp, Ql	C, S	Irr	30R	1	5.6	5,034	11-10-55	D; W8
1	3bdc	530	do	1944	46R	48	Qpp, Ql	C, S	Irr	30R	1	22.2	5,084	8-8-56	W8
1	3bdc	1,840	M and G Feed Lot	1955	60R	8	Ob, Ql	..	8	860R	10	40	5,060	10-25-55	B60; Dr; L; P448-60
1	4adcb	3,380	L. Wolpert	1955	18.9	34	Qpp, Ql	M	Irr	275R	7.8	4.7	5,033.6	4-10-62	A30; Ar; D; W(11-23-55) 4.9; W(11-5-57) 4.1
1	7dabc	2,030	J. Fukaya	1954	41.5	48	Qpp, Ql	T.E	Irr	250R	1	32.0	5,092	8-8-56	D; W8
1	7dabc	970	do	1944	34.0	36	Qpp, Ql	T.E	Irr	250R	1	28.3	5,095	8-8-56	D; W8
1	8bcca	3,290	M. Eppinger	1954	33R	48	Qpp, Ql	T.E	Irr	370R	3.0	1/4	5,081	8-8-56	W8
1	8cccc	300	J. Fukaya	1954	30.9	48	Qpp, Ql	T.E	Irr	370R	3.0	1/4	5,084	8-8-56	W8
1	9adbb	3,100	D. Howe	1947	13.1	36	Qpp	C, E	Irr	..	..	5.0	5,062.7	4-10-62	W8
2	9addd	2,850	E. Aden	1956	340R	6 to 4	Tkdu, Kama	..	D	..	..	14	5,050	8-17-56	B40; Dr; L; P4294-340
1	9bdba	3,790	Rocky Mountain Arsenal	1960	30.0	4	Qpp, Ql	..	O	20R	3	2.4	5,035.0	4-10-62	B27.4; Core; L; S4.0-13.0, 22.0-26.0
1	9caab	2,630	D. Howe	1945	23R	36	Qpp, Ql	M	Irr	..	..	2.3	5,037.0	11-7-57	D; P410-15; W(11-21-55) 2.4
1	9dcda	600	P. Latorza	1930	12R	24	Qpp	..	Irr, B	194R	3.8	1-1/2	5,040	9-3-60	D; W8
1	9dada	2,380	E. Aden	1945	24.1	48	Qpp, Ql	T.E	Irr	194R	3.8	1-1/2	5,055	9-3-60	AT
1	9daac	2,280	H. Miller	1955	23R	48	Qpp, Ql	C, E	Irr	500R	5	13	5,055	1-16-56	B23; D; DL; W8
1	9daac2	2,200	do	1945	50R	..	Qpp, Ql	..	D	..	..	13.5	5,050	11-21-55	W8
1	9daba	850	G. Elledge	1945	17.5	48	Qpp, Ql	C, O	Irr, B	..	..	13.5	5,050	11-21-55	Al; D; P45
1	9dadb	1,770	W. Weare	1948	45R	8	Qpp, Ql	J.E	D	..	..	32.1	5,080	10-26-55	Dr; U(1955); W8
1	9dad	1,340	H. Miller	1940	50R	48	Qpp, Ql	T.E	Irr	555R	6.0	1/2	5,077.0	10-26-55	DO; P; W8
1	9dasc	680	C. Moller	1959	54R	..	Qpp, Ql	J.E	M	..	..	..	5,070	..	D; W8
1	9dcdb	520	E. Richardson	1954	53R	5	Qpp, Ql	..	D	820R	2	30	5,080	1-3-54	B47; Dr; L; P438-53
1	9dcdb2	650	J. Lambert	1953	68R	4	Qpp, Ql	J.E	D	..	..	36	5,081	10-1-55	Dr; W8; W8
1	9dcdb	300	A. Ling Jr.	1955	49R	6	Qpp, Ql	..	D	820R	1	..	5,081	10-1-55	B44; Dr; L; P428-48
2	9dcdb2	150	Hazeltine Heights Water District	1959	732R	8 to 7	Kamc, Kalc	S, E	P8	100R	226	36	5,081	3-14-59	B43; Dr; EL; FD; L; P424-727; W8
1	9dcdb3	60	R. Wintjen	1954	50R	6	Ql	..	D	820R	37	1-1/2	..	10-1-55	Dr; W8; W8
1	9dcdb	50	Fargo Oil Co.	1955	49R	6	Qpp, Ql	..	D	820R	1	1-1/2	..	10-1-55	Dr; W8; W8
1	9ddab	1,220	W. Weare	1950	40R	..	Qpp, Ql	M	D	..	..	..	..	..	U(1959)
1	9ddab	1,000	C. Dobbs	1943	46.3	96	Qpp, Ql	C, E	Irr	..	..	33.9	5,074.6	12-1-55	Ar; D; W8
1	9ddad	1,150	R. Tipeword	1954	49R	5	Qpp, Ql	..	D	810R	10	30	5,070	2-22-54	B37; DL; Dr; P433-49
1	10aach	4,350	G. and W. Myere	1955	41.9	48	Ql	C, E	Irr	..	..	34.4	5,070	10-25-55	A12 (with 10aach); B42; D; L; P432-42; W8
1	10abaa	5,100	R. Roop	1946	47R	18	Qpp, Ql	T.E	Irr	..	..	37.3	5,071.2	4-11-62	Dr; P; P415; W(11-17-55) 37.7; W(11-5-57) 38.4
1	10abdb	4,500	do	1953	38.7	18	Qpp, Ql	T.E	Irr	..	7.8	1/4	5,063.0	11-17-55	W(11-5-57) 38.4
1	10acab	3,700	G. and W. Myere	1955	44.1	48	Qpp, Ql	T.E	Irr	..	..	37.0	5,073.4	10-25-55	A40 (with 2 wells); Dr; P415

Table 2.--Records of selected wells and springs--Continued

State number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
C2-67-	1	2,650	J. Jacobucci	1955	49.4	60 to 18	Qb-Q1	T, E	1/2	47.5	5,082	9-17-55	By: D; WS
	1	2,650	do	1955	25R	48 to 12	Qb-Q1	T, E	1/2	47.2	5,082	9-16-55	By: D; WS
	1	4,050	R. Tanabe	1955	200R	48	Qb-Q1	C, E	3.5 1/2	47.2	5,055.0	9-16-55	A40; B25; D; DL; F; F211-25
	2	4,680	Brighton Public Schools	1910	200R	48	Qb-Q1	M	1/2	47.2	5,055.0	9-16-55	Dr. Hazeltine school
	1	4,680	do	1944	40R	48	Qb-Q1	T, E	1/2	25.5	5,058.0	11-21-55	A40; B32; B4; D; F; F26; WS
	1	3,600	R. Tanabe	1915	12.8	48	Qb-Q1	T, E	1/2	25.5	5,058.0	11-21-55	A40; B32; B4; D; F; F26; WS
	1	3,440	do	1951	11.5	48	Qb-Q1	T, E	1/2	26.7	5,070	11-21-55	A40; B32; D; F; F27; WS
	1	2,650	G. Meyers	1951	41.1	48	Qb-Q1	T, E	1/2	36.9	5,070	8-22-55	A40; B32; D; F; F27; WS
	1	2,650	do	1951	39.7	48	Qb-Q1	T, E	1/2	38.0	5,070	9-9-55	A40; B32; D; F; F27; WS
	1	350	M. Nelson	1951	59R	48	Qb-Q1	D	1/2	38.0	5,070	9-9-55	A40; B32; D; F; F27; WS
1	100	Latter Day Saints Church	1955	34.4	60 to 24	Qb-Q1	C, Tr	1/2	24.5	5,076.4	4-11-62	D; U(1955-62); WS	
1	10cdd	50	J. Macnaght	1955	39.8	18	Qb-Q1	T, E	1/2	25.8	5,079.5	11-30-55	B41; D; L; L226-41; WS
1	10dccc	50	do	1954	41R	48	Qb-Q1	T, E	1/2	30.5	5,082	9-8-55	A60; D; F; WSP
1	10dccc	40	do	1912	39.5	48	Qb-Q1	T, E	0.9 1/4	30.2	5,084	11-18-55	A60; D; F; WSP
1	10dcdc	1,300	C. Wall	1915	41.0	48	Qb-Q1	C, Tr	1/2	29.6	5,084	4-30-37	L
1	10ddbb	1,300	A. Letterly	1955	44.8	18	Qb-Q1	T, E	1/2	25.2	5,093.0	9-26-55	B43; D; GE; L
1	10dabb2	1,270	do	1950	55R	60	Qb-Q1	T, E	1/2	35	5,082	9-9-54	A80; D; WS
1	11aabe	5,080	J. Fry, Sr.	1940	42.9	48 to 16	Q1	J, E	1/2	38.8	5,091	9-23-54	B39; L; F224-44
1	11aada	4,540	do	1957	53R	48	Q1	T, E	1/2	36.7	5,102	9-23-55	D; F218; WSP
1	11adab2	3,350	do	1914	41.1	48 to 16	Q1	T, E	1/2	25.2	5,093.0	9-26-55	A100; B53; Su
1	11baca	4,450	B. Murkay	1935	51.9	66 to 36	Q1	T, E	1/2	45.2	5,084.0	9-15-55	D; F218; WSP
1	11bacab2	3,520	do	1937	51.9	48	Q1	T, E	1/2	48.2	5,084.0	9-15-55	D; F218; WSP
1	11bbcd	2,680	do	1914	41.1	48	Q1	M	1/2	36.7	5,082.7	4-3-56	D; U(1955); WL(8-23-55)
1	11bbcd	2,680	do	1912	40.9	60	Q1	T, E	1/2	37.0	5,083	8-23-55	D; U(1955)
1	11bbcd	3,300	do	1917	56.3	48	Q1	T, E	1/2	49.8	5,087.0	9-16-56	D; WS
1	11bbda	3,280	do	1917	61R	24	Q1	T, E	1/2	48.1	5,087.0	9-16-55	D; F218; WSP
1	11cabb	1,820	J. Fry, Jr.	1947	54.0	48	Q1	M	1/2	48.1	5,095	9-27-55	D; F29
1	11cdcb	520	do	1955	44.9	18	Q1	T, E	2 1/2	37.4	5,097.0	4-11-62	B38; D; GE; L; L228-43
1	11cbac	2,040	P. Eiger	1958	43R	12	Q1	T, E	1/2	32.7	5,113.5	8-19-55	B35; D; L; L220-43
1	11bbda	1,400	do	1955	49.3	34	Q1	J, E	1/2	45.3	5,115.0	9-26-55	D; L220-43
1	11bbda2	1,470	do	1950	50.0	48	Q1	T, E	1/2	46.3	5,115.3	9-26-55	By: D; F29; WS
1	12bbda	4,280	Box Elder Farms	1916	30.8	48	Qv	M	1/2	18.7	5,123.9	8-10-55	D; WS
1	12bbca	3,750	D. M. H. Cattle Co.	1960	53R	12	Qv	T, E	1/2	35	5,110	6-15-60	B49; D; L; F240-52
1	12bdad	3,580	do	1958	43R	12	Qv	T, E	1/2	26.7	5,123	10-7-60	B45; D; L; L220-43
1	12cbac	2,000	do	1955	46R	12	Qv	T, E	4 1/2	29.3	5,118	9-31-55	B46; DL; D; F232-5
1	12cbba	2,600	do	1955	44.6	12	Qv	T, E	1/2	44.3	5,112	9-30-55	B46; DL; D; F232-5
1	12cbca	1,680	do	1955	42.9	12	Qv	T, E	1/2	44.3	5,112	9-30-55	B46; DL; D; F232-5
1	13bdad	2,650	Bucky Mountain Arsenal	1960	40.0	4	Qv	T, E	1/2	24.1	5,112	9-30-55	B46; DL; D; F232-5
1	13cadd	1,650	J. Stohr	1915	40.5	24	Qv	M	11.5 1/2	26.9	5,135.5	4-14-62	B33.4; Core; GE; S228.0-28.0; 30.5-33.0; SL
1	14aaba	5,040	T. Gage	1950	26.0	24	Qv	Cyl. H	1/2	22.9	5,127	8-18-55	D; WS
1	14bbab	5,100	J. Fry, Jr.	1947	51.1	24	Q1	T, E	1.7 1/2	38.0	5,102.0	9-9-55	D; WS
1	14bbba	5,250	do	1947	52.4	48	Q1	T, E	1.6 1/4	47.6	5,102	9-9-55	D; WS
1	14bbba2	5,240	do	1948	52.4	48	Q1	T, E	3.6 1/4	48.3	5,102	9-9-55	A30; D; WS
2	14ccdb	660	E. Tiedeman	1955	450R	12	Kdnc	T, E	1/2	48.3	5,125	9-9-55	A30; D; WS

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
2	14daa	2,500	O. Maul	1949	843R		Kdmc, Kdic		O	7M			5,139	...	Dri, WS
2	14daab	1,150	do		2,024R		Kib, Klc, Kcm		Oil				5,122	...	Plugged, flowed at land surface at depth of 1,100 feet
1	15abca	4,500	Rocky Mountain Arsenal	1960	58.0	4	Ql	M	O	7M		30.6	5,082.0	4-12-62	843.6; Core; GE; 820.0-50.0; SL; WL(9-30-60)28.5
1	15abcb	3,450	W. Murphy	1939	46.6	60	Ql	T, E	Irr	255M	2.8	43.0	5,100	9-12-55	D, 7L; WS
1	15abcc	4,150	Rocky Mountain Arsenal	1960	40.0	4	Qb, Ql	M	O	7M	.8	19.6	5,071.5	4-12-62	833.7; Core; GE; 820.1-33.0
1	15abdd	4,250	J. Munson	1950	50R	48	Qb, Ql	T, E	Irr	270M	7	37.3	5,088	9-8-55	D, WS
1	15abdd2	4,000	Rocky Mountain Arsenal	1960	43.0	4	Qb, Ql	M	O	7M		23.4	5,075.3	4-12-62	836.5; Core; GE; 826.0-36.5; SL; WL(9-29-60)21.0
1	15abbe	3,850	do	1960	35.0	4	Qb, Ql	M	O	14M	.6	15.4	5,074.1	3-15-62	828.5; Core; GE; 819.0-30.0; SL; WL(9-28-60)13.9
1	15bdae	3,950	J. Munson	1930	50R	48	Qb, Ql	T, E	Irr	512M	7.3	36.4	5,089	9-8-55	AL37 (with 3 wells); WS
1	15bdeb	3,920	W. Murphy	1955	47.8	48	Qb, Ql	T, E	Irr	473M	3.4	38.7	5,078	9-12-55	A40; D; WS
1	15bdec	2,650	J. Munson	1955	34.5	18	Qb	T, E	Irr	208R		32.0	5,084	9-8-55	830; Dri; GE; L; WS
1	15bdec2	1,460	J. Powers	1950	29.6	36	Qb, Ql	T, E	Irr			23.3	5,086	9-12-55	A35; D; U(1955); WS
1	15bdec3	50	do	1945	38.8	48	Qb, Ql	T, E	Irr	264M	3.5	10.7	5,100	9-19-60	AT; BY2; D; WS
1	15bdec4	50	do	1945	38.8	36	Qb, Ql	Cyl, H	Irr			30.8	5,100	8-17-55	D; SL
1	15bdec5	40	do	1950	40R	24	Qb, Ql	J, E	B			19.3	5,102	9-12-55	Dri; WS
2	15bdec6	320	do		535R		Romc		D, S				5,100	...	Dri; WS
1	15bdec7	660	D. Heinz	1954	40R	48	Qb, Ql	T, E	Irr	330M	6.9	34.4	5,100.0	8-19-55	A54; B40; D; DL; P(10); WS
1	16acba	3,870	M. Tashiro		22.1	24	Qb, Ql	Cyl, H	D			21.0	5,075	8-22-55	D; U(1955)
1	16acbb	3,600	do		40.3	24	Qb, Ql	T, E	Irr	173M	3.0	33.5	5,080	11-10-55	A100; WS
1	16acbb2	3,200	Rocky Mountain Arsenal	1960	40.0	4	Qb, Ql	M	O	7M	.5	18.6	5,074.7	3-15-62	833.5; Core; GE; 816.6-32.5; SL; WL(9-60)19
1	16adac	3,500	do	1960	32.0	4	Qb, Ql	M	O	13M	.8	19.4	5,073.4	3-15-62	826.3; Core; GE; 820.0-37.0; SL; WL(10-3-60)18.1
1	16bada	3,220	M. Tashiro	1951	43R	18	Qb, Ql	T, E	Irr	235M	7	28.3	5,082.2	4-10-62	Dri; WL(11-10-55)29.7; WL(11-5-57)21.0; WS
1	16bade	2,670	J. Sanger	1956	42.5	36	Qb, Ql	T, E	Irr	300M	11	29.1	5,090	11-21-55	A60; BY2; D; P(1-5); WS
1	16bade2	2,750	M. Tashiro		39.0	48	Qb, Ql	T, E	Irr	560M	8.6	28.9	5,085	11-10-55	A100; BY1; D
1	16bade3	2,720	do		44R	48	Qb, Ql	T, E	Irr			30.0	5,085	11-10-55	BY1; D
1	16bade4	1,360	J. Priola	1956	44R	48	Qb, Ql	T, E	Irr			30.2	5,093	12-16-57	A55; D; P(16); Su
1	16bade5	480	W. Starbuck	1944	47.4	36	Qb, Ql	T, E	Irr	255M	6.8	38.4	5,097	9-28-55	A7; D
1	16cdab	580	J. Priola	1953	48.6	48	Qb, Ql	T, E	Irr	405M		45.3P	5,095	9-14-55	D
1	16cdab2	450	do		47.6	48	Qb, Ql		Irr			44.5P	5,095	9-14-55	B48; D
1	16cdac	30	do		49.3	60 to 36	Qb, Ql	T, E	Irr			37.0	5,097	4-3-56	BY2; D; WL(9-13-55)44.6; WSP
1	16cdad	50	do		44.2	60	Qb, Ql		Irr			36	5,097	9-14-55	D; SL; WS
1	16cdad2	3,500	do	1940	44.2	48	Qb, Ql	T, E	Irr			40.2P	5,095	9-13-55	D; T55
2	16daab	350	Midwest Refining Co.	1902	887R		Kdmc, Kdic	M	Oil				5,077	1950	Dri; Plugged 1950
2	16dabc	2,650	Gardner-Denver Co.	1957	716	10 to 8	Kdmc, Kdic	T, E	Ind, B	BLTOR	60	15	5,078	12-31-57	Dri; EL; L; S; Tchl; 3-512, 580-713; WS
1	16dbcc	1,360	J. Priola	1956	42R	48	Qb, Ql	T, E	Irr			25.6	5,086	12-16-57	A55; D; DL; P(16); Su
1	16dbcc2	40	J. Matsumoto	1956	35R	48	Qb, Ql		Irr	384M	4.8	24	5,091	6-21-56	AT; B15; D; DL
1	16dbcc3	40	do		36.6	48	Qb, Ql	T, E	Irr	336M	6.9	22.8	5,094.3	4-11-62	A4; AT; D; WL(11-5-57)
1	16ddad	40	do	1954	38.8	48	Qb, Ql	T, E	Irr	380M		12.9P	5,098	9-14-55	A43; D; WS

Table 2 -- Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use Yield of (gpm) water	Drawdown (feet)(hours)	Depth of water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
C2-67-														
1	17abdd	4,820	H. Jeffry	1954	9.5	96	Qpp	C.O.	Irr	..	2.7	5,047	8-8-56	8
1	17bcb	4,510	A. Ford	1937	14.5	36	Qp, Q1	C.E. & Irr	175R	..	11.1	5,067.5	1-10-62	D; DL; P4
1	17cbcd	1,340	Z. Honnen	1956	28R	48	Qp, Q1	T.E. Irr	..	..	3.9	5,059	12-19-57	A80; D; DL; P49-28
1	20aab	5,040	E. Paterson	1951	7.8	..	Qp	C.E.	P	..	6.8	5,091	11-23-55	D
2	20abab	4,950	.. do ..	1955	184R	6 to 3	Kmc	..	10R	..	..	5,073	9-16-55	B20; D; L; Tch185-205, 324-384. Flowing July 1955
1	20abbd	4,850	.. do ..	1940	17R	48	Qp, Q1	T.E.	P	0.4	3.3	5,060	9-16-55	D
1	20abda	4,600	.. do ..	..	10.6	36	Qp	C.E.	P	1/4	4.6	5,065	11-23-55	D
1	20acab	3,680	A. Brantner	1954	35R	24	Qp, Q1	..	Irr	..	20	5,090	8-15-54	D; DL
1	20abcb	3,450	.. do ..	..	43.8	48	Qp, Q1	..	Irr	..	30.6P	5,100	8-17-55	A15; D; P412; Su
1	20adca	3,220	Hastie	..	41.6	72	Qp, Q1	C.O.	Irr	..	33.0	5,101	9-20-55	A4; D; P
1	20adcc	2,820	R. Leasing	1951	42.7	48	Qp, Q1	T.E.	Irr	6.1	39.3P	5,103	9-7-55	D
1	20add	2,650	Q. Dunning	1952	46.8	48	Qp, Q1	T.E.	Irr	..	33.9	5,105	9-19-55	A10; D; P; P418; T56
1	20bbcb	4,520	E. Honnen	1954	29.3	48	Qp, Q1	T.E.	Irr	..	4.6	5,080	9-23-55	A50; B31; D; DL; F
1	20bcb	3,750	.. do ..	1932	26.1	48 to 36	Qp, Q1	T.E.	Irr	15	5.1	5,061.2	4-10-62	P415-31; T62
1	20bccc	2,900	.. do ..	1932	27R	48 to 36	Qp, Q1	C.E.	Irr	13	..	5,065	9-23-55	A62; D; P; P415; T56
1	20bdad	3,600	F. Rizer	1955	21.6	48	Qp, Q1	C.E.	Irr	..	4.6	5,069	8-19-55	B21; D; DL; P46-21; U(1955)
1	20bdad2	3,300	.. do ..	1950	21.1	48	Qp, Q1	C.E.	P	..	9.8P	5,062	8-19-55	D
1	20dbcd	3,400	E. Honnen	1932	26.9	48 to 36	Qp, Q1	T.E.	Irr	15	1/6	5,060	9-23-55	A29; D; P; P415
1	20cbcd	1,400	.. do ..	..	20.5	48	Qp, Q1	C.E.	P	..	5.1P	5,108	11-21-55	D; P417; T56
1	20ccaa	1,020	.. do ..	..	14R	72	Qp, Q1	T.E.	P	..	9.0	5,107	11-21-55	D; WS
2	20cdda	400	Colo. State Hwy. Dept.	1900	60R	4	Kmc, Kdlu	Cyl. M	..	..	..	5,113	1930	D; U(1960). Ceased flowing about 1930
1	20cdde	100	L. West	1949	18.5	36	Qp, Q1	Cyl. E	..	..	26.8	5,105.8	4-10-62	D; P414-40; T59; U(1950)
2	20cdde	100	K. Paden	1925	550R	..	Kmc, Kdlu	..	..	..	..	5,116	..	Dr
1	20dadd	2,300	D. Ledvetter	1944	46.1	36	Qp, Q1	T.E.	Irr	..	30.9	5,106	9-20-55	A20; D; P418; WSP
1	20dabb	2,400	B. Moore	1905	39R	10 to 8	Qp, Q1	J.E.	..	..	..	5,106	..	Dr; QM
1	20dabb2	2,400	Amidon Cash Nursery	..	18.2	60 to 20	Qp, Q1	..	Irr	..	12.4	5,103	9-15-55	D; P47.5
1	20dadd	1,620	T. Sonoda	1948	50R	60	Qp, Q1	J.E.	Irr	..	33.6	5,105	9-19-55	A23; D; P; P410; T55
1	20dbda	1,700	.. do ..	1949	50R	48	Qp, Q1	J.E.	D	..	..	5,109	9-15-55	D; WSP
1	20dbcb	950	M. Wylie	1949	41.2	48	Qp, Q1	T.E.	Irr	6.2	1/4	5,109	9-15-55	A25; B43; D; P; WSP
1	20dddc	40	K. Paden	..	37.9	120	Qp, Q1	T.E.	Irr	..	28.8	5,110	8-5-55	D; WSP
2	21aada	4,500	A. Marty	1955	535R	6 to 4	Kmc	S.E.	D, S	80	40	5,103	12-1-55	B47; D; L; WS
1	21adde	3,050	.. do ..	1928	52.7	60 to 48	Q1	T.E.	Irr	10.9	1-1/4	5,114.2	4-11-62	A130(bath 21adde2 and 21bdccl); AT; WL(9-12-55)33.8; WL(4-3-56)31.7; WS
2	21bbdd	4,750	R. Green	..	500R	5	Kmc	J.E.	D	..	..	..	..	Dr; QM; WSP
1	21bccc	2,650	.. do ..	..	47.1	48	Qp, Q1	T.E.	Irr	..	35.7	5,105	9-19-55	B42; D; WSP
1	21bccc2	2,650	.. do ..	..	45.1	60	Qp, Q1	N	Irr	..	35.7	5,105	9-19-55	D; S
1	21bdc	3,100	M. Priola	1944	50R	48 to 18	Qp, Q1	T.E.	Irr	11	36	5,108.1	4-11-62	A80(with 21bdc and 21bdccl); D; P416; WL(8-17-55)34.1; WL(11-5-57)31.2; WSP
1	21bdc	2,900	.. do ..	1954	49.4	48	Qp, Q1	T.E.	Irr	12	4	5,109	8-17-55	D; P416; WSP
1	21bdc2	2,900	.. do ..	1954	93R	18	Qp, Q1	T.E.	Irr	37	2	5,109	9-1-55	B95; DL; Dr; P448-9; WSP
1	21bdcc	2,690	A. Marty	1954	97.0	48	Qp, Q1	T.E.	Irr	1,640M	..	5,107.4	9-12-55	B97; D; L; P479-97; WS
2	22aabb	5,070	D. Wolpert	..	400R	..	Kmc	..	D	..	34.2	5,129	5-12-56	Dr; WS
2	22aabb	5,150	J. Haas	1956	10R	6 to 4	TKdu	S.E.	D	85	1	5,125	..	DL; Dr; P414-170
2	22acac	3,450	H. Neom	..	..	..	TKd	..	D, S	..	..	..	..	WS

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet/hour)	Depth of water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
2	22acbd	3,410	2,110	Harks and Anderson	1958	350R	8 to 4	Kdmc	S.E.	D.S.	25R	100	5,141	6-10-58	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
2	22acbd2	3,370	2,110	do	1958	660R	8 to 4	Kdmc, Kdmc	S.E.	D.S.	100R	100	5,141	6-10-58	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
2	22acdc	2,750	1,850	Rocky Mountain Arsenal	1958	178	8 to 6	Tkdu	Port, M	0	0	73.2	5,140.2	2-22-58	B40, Core1 GZ1 L1, S1 Sc24.5-76.7, 138.4-147.0, Map
2	22acdd	2,640	1,600	do	1958	500R	4	Kdmc	M	0	0	46.1	5,146	8-11-55	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	22abba	3,100	3,560	W. Munson	1916	43R	4	Ql	Ql	0	0	28.7	5,102	9-13-55	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	22abbb	3,900	5,250	do	1924	47.1	48	Ql	Ql	0	0	28.7	5,102	9-13-55	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	22abbb2	3,890	5,240	do	1924	37.7	68	Ql	Ql	0	0	28.7	5,102	9-13-55	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	22abcc	2,910	5,100	H. Nesom	1953	38.3	18	Ql	Ql	0	0	28.7	5,110	9-13-55	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	22abcc2	2,950	5,170	do	1952	45.7	18	Ql	Ql	0	0	28.7	5,110	11-7-55	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	22abcc3	2,670	5,250	do	1950	47.6	18	Ql	Ql	0	0	28.7	5,109	9-13-55	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	22abdb	3,650	3,900	Rocky Mountain Arsenal	1960	45.0	4	Qes, Ql	Port, M	0	0	29.8	5,108.8	9-21-60	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	22caad	2,250	2,860	H. Yamamoto	1957	50.7	36	Qes, Qv	T.E.	Err	294M	13.6	5,132.6	11-23-55	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	22cad	1,150	3,200	Rocky Mountain Arsenal	1960	48.0	4	Qes, Qv	M	0	0	30.6	5,131.3	4-3-62	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	22cbcc	1,350	5,080	Not known	1957	36.5	10	Qes, Qv	Cyl, M	0	0	33.4	5,117	8-18-55	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	22ccaa	1,200	4,150	Mrs Reynolds	1957	42.1	30	Qes, Qv	C.M.	Err	0	31.0	5,123.9	4-11-62	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	22cdcc	200	3,700	Rocky Mountain Arsenal	1960	65.0	4	Qes, Qv	M	0	0	31.0	5,127.6	4-14-62	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	22dhab	2,400	1,680	do	1957	40.0	4	Qes, Qv	Port, M	0	0	37.3	5,146.3	9-4-57	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	22dhbc	2,200	2,550	do	1960	49.0	4	Qes, Qv	M	0	0	27.4	5,139.1	4-14-62	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	22ddad	800	100	do	1957	32.3	36	Qes, Qv	M	0	0	26.2	5,176.1	11-6-57	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	22ddba	1,250	950	do	1957	49.0	4	Qes, Qv	Port, M	0	0	39.0	5,152.7	8-29-57	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	23abdb	4,550	1,950	do	1957	20.0	4	Qes, Qv	Port, M	0	0	6.2	5,150.1	10-8-57	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	23addd	2,850	120	do	1957	30.6	42	Qes, Qv	M	0	0	21.5	5,166.1	9-4-55	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	23addd2	2,900	300	do	1960	37.0	4	Qes, Qv	M	0	0	16.3	5,161.0	4-12-62	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
2	23adde	4,000	3,200	do	1957	520R	5	Kdmc	Cyl, M	0	0	38.5	5,155	4-12-62	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	23adde2	2,690	2,820	do	1957	47.0	48	Qes, Qv	Ql	0	0	38.5	5,186.4	11-6-57	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	23ccaa	1,250	4,400	do	1960	56.0	4	Qes, Qv	M	0	0	43.2	5,191.5	4-3-62	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	23cdhb	1,000	3,880	do	1957	63.0	24	Qes, Qv	C.M.	0	0	43.6	5,196.3	9-6-55	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	23cdhc	250	3,200	do	1960	61.0	4	Qes, Qv	M	0	0	42.8	5,190.4	4-12-62	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	23ddac	750	400	do	1960	40.0	4	Qes, Qv	M	0	0	26.4	5,173.2	4-14-62	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	24abba	5,050	2,050	do	1960	33.0	4	Qes, Qv	M	0	0	5.1	5,140.5	4-14-62	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	24abcc	2,930	2,420	do	1942	22R	8	Qes, Qv	Cyl, G	0	0	12	5,160	12-4-42	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	24baac	4,750	3,250	do	1958	20.0	4	Qes, Qv	M	0	0	2.4	5,140.4	3-4-58	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	24bcde	2,650	4,380	do	1958	48.5	48	Qes, Qv	M	Err, 0	0	25.3	5,167	9-22-55	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	24bdde	2,690	3,200	do	1960	33.3	4	Qes, Qv	M	0	0	19.5	5,165.8	7-6-57	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	24cecc	150	5,200	do	1960	25.0	4	Qes, Qv	M	0	0	12.8	5,198.3	4-14-62	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150
1	24dadb	1,700	400	do	1960	40.0	4	Qes, Qv	M	0	0	9.4	5,167.1	4-14-62	Dr B75, Dr1 H8-6-41, L1 22440-480, 528-550, 572-616, WL(5-62)150



Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use Yield of (gpm) water	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
C2 67--														
1	25bda	3,350	Rocky Mountain Arsenal	1957	39.0		Qas, Qv	M	O			5,224.0	10-17-57	B34.7; Core; Ss; Sc32.4-34.5. Dry
1	25dca	600	do	1957	56.0		Qas, Qv	M	O		41.0	5,229.6	9-10-57	B51.2; Core; L; Ss; Sc49.1-51.2
2	26bac	4,670	do	1961	12,045	18 to 8	Pf		WD, I			5,187.3		SL; GRL; L; M; Ss; WS. Temperature log; injecting 200 gpm continuously in 1962
1	26cab	3,700	do	1960	61.0		Qas, Qv	M	O		49.0	5,201.5	3-6-62	B51.7; Core; G; Sc47.0-53.0; SL
1	26adda	250	do	1957	56.0		Qas, Qv	M	O		41	5,220.0	10-11-57	B46.3; Core; L; Ss; Sc41.5-46.0
1	26aba	5,120	do	1960	39.4	28	Qv	M	O		38.5	5,190.0	8-31-55	D
1	26abb	5,050	do	1960	51.0	4	Qv	M	O		42.9	5,190.7	4-16-62	B46.2; Core; G; SL
1	26abb2	5,000	do	1960	53.2	4	Qv	M	O		40.0	5,189.9	9-6-57	B46.2; Core; Sc44.0-46.3
1	26ada	4,550	do	1960	53.0	4	Qas, Qv	M	O	6M	13.5	5,207.6	4-14-62	B47.6; Core; G; Sc40.0-48.0; SL
1	26bad	4,700	do	1960	32.0	4	Qas, Qv	M	O	14M	13.5	5,207.6	4-14-62	B29.4; Core; G; Sc16.0-20.0, 25.0-28.0; SL
1	26bcd	2,650	do	1958	35.0	4	Qv	M	O	3M	28.0	5,193.3	2-25-58	B35.0; Core; Ss; Sc32.2-33.2; SL
1	26dca	2,700	do	1957	44.0	4	Qv	M	O		21.4	5,193.3	9-9-57	B39.1; Core; SL
1	26cab	2,550	do	1958	36.0	4	Qv	M	O	1M	28.0	5,193.3	2-25-58	B36.2-38.2; SL
1	26dcb	1,200	do	1960	20.0	4	Qv	M	O	5M	32.7	5,249.0	4-12-62	Core; G; SL
1	26dbd	2,050	do	1960	49.0	4	Qv	M	O	5M	39.9	5,204.4	3-6-62	
1	27aca	3,200	do	1960	50.0	4	Qv	M	O	4.5M	42.6	5,184.6	3-13-62	
1	27adc	2,700	do	1960	44.4	4	Qv	M	O		31.5	5,157.9		
1	27bab	5,100	do	1958	64.8	4	Qas, Ql	M	O	16M	37.5	5,134.0	2-27-58	B63.2; Core; Ss; Sc45.0-50.2, 58.3-63.3; SL
1	27bac	4,050	do	1960	72.0	4		M	O	8M	38.7	5,135.9	3-13-62	B69.7; Core; G; Sc37.0-63.5; SL
1	27bca	4,900	do	1960	45R	7	Qas, Ql	M	O		42.7	5,120	9-6-55	Dri WS
1	27bdb	4,850	do	1960	55.0	4		M	O	6M	34.6	5,132.3	4-14-62	B48.6; Core; G; Sc39.4-46.1; SL
1	27bcd	2,850	do	1957	63.0	4	Qas, Ql	M	O	21M	46.5	5,145.8	10-7-57	B60.3; Core; P; Ss; Sc48.8-50.8, 51.8-59.6; SL
1	27bdc	3,110	do	1956	87R	3	Qas, Ql	M	O		38.9	5,136.0	6-9-56	B64; DL; Dr. Destroyed
1	27dbd	900	do	1960	50.0	4		M	O	83R	39.6	5,168.2	3-8-62	B43.8; Core; Sc40.1-43.8; SL
1	27dda	550	do	1943	57.8	3	Qas, Qv	M	O		50.8	5,189.9	9-6-55	Dri WS
1	28aaa	5,120	do	1943	51R	46	Qas, Ql	J, E	PS		39.9	5,111	11-21-55	Dri WS
1	28abd	4,810	do	1956	82R	6 to 5	Qas, Ql		D	88R	20	5,120	5-18-56	B77; Dri; L; Pf25-82
1	28abc	4,290	do	1956	50R	48 to 24	Qas, Ql		D			5,125		WS
1	28acd	3,100	do	1949	44.9	48 to 24	Qas, Ql	T, E	Irr		40.7	5,131	9-14-55	A4; F; T57. Well pumped dry in 1955
1	28acd	2,800	Rocky Mountain Arsenal	1955	53.2	44	Qas, Ql	M	O		42.7	5,140.6	9-6-55	D; WS
1	28baa	5,160	Mrs. Bollers	1955	70R	5	Qb, Ql		D	88R	45		8-23-55	B55; DL; Dri Pf24-55, 67-70; MSP
1	28bca	4,430	do	1926	56.5	36 to 12	Qb, Ql	T, E	Irr		47.3		11-23-55	A20; D; F
1	28bcb	4,700	do	1926	44.1	42 to 24	Qb, Ql	C, E	Irr		36.4	5,120	9-14-55	A8; D; MSP
2	28bda	4,140	Adams City Water and Sanitation District	1951	745R	6 to 4	Kdec, Kalc		Sch B20R		120	5,128	3-56	B55; DL; Dri; MSP
1	28bcc	2,900	do	1940	55.5	48	Qb, Ql	T, E	Irr 305M	2.3	42.4	5,135	8-8-55	A25; D; F; F
1	28bcd	3,000	P. Polombo	1940	60R	48	Qb, Ql	T, E	Irr 390M	4.3	47.3	5,135	8-8-55	A80 (with 3 walls); D; Pf45-60

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift and power	Use of water	Yield (gpm)	Drawdown (feet/inch)	Depth of water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
<b>C2-67-</b>															
1	28bddd	2,900	T. Palazzi	1944	50.0	48	Qb-Ql	T, E	Irr	320M	..	36.7	5,133.8	4-11-62	A20, D, WL(8-6-55) 36.4; WL(11-5-57) 37.1; WSP
1	28cbac	1,900	F. Palombo	1937	60R	48	Qb-Ql	C, E	Irr, D	350R	12	46.5	5,139	8-8-55	A20, D, F, P445-60
1	28cbac	4,620	C. Sharpless	1956	95R	5	Qb-Ql	..	D	815R	40	1	5,128	5-25-56	870, D, F, P445-60
1	28cbdd	2,060	A. O'Kelly	1954	60R	5	Qb-Ql	..	D	815R	4	1	5,128	1-6-54	858, D, F, P445-60
1	28ccda	420	J. Vade	1944	67.6	48	Qsa-Ql	T, E	Irr	350R	..	51.7P	5,160	8-8-55	A5, D, F, P412, 757
1	28cdcb	1,100	M. Auman	1938	50.2	40 to 10	Qsa-Ql	T, E	Irr, D	..	..	40.4	5,160	8-17-55	D
1	28dbbc	2,260	S. Ullaberr	1952	30R	46 to 6	Qsa-Ql	T, E	Irr	..	..	..	5,135	..	A5, D, W5
1	28dbac	4,640	S. Donovan	1935	37.6	48	Qb-Ql	T, E	Irr	..	..	27.7	5,115	9-7-55	D
1	28dbcc	4,250	J. Kramer	1935	43.0	120 to 10	Qb-Ql	T, E	Irr	..	..	28.6	5,110	9-7-55	A40, D, F
1	28bddd	2,650	.. do ..	1935	49R	48	Qb-Ql	T, E	Irr	..	..	31.0	5,118.5	4-11-62	WL(9-7-55) 33.5; WL(11-5-57) 29.3
1	28bdaa	1,850	.. do ..	..	46.1	60	Qb-Ql	T, O	Irr	..	..	30.6	5,112	8-16-55	D
2	28ccda	100	South Adams Water and Sanitation District	1953	790R	10 to 8	Kmac, Kdlc	T, E	PS	200R	219	11	5,123.5	6-24-53	B25, EL, L, SL; Tch298-324, 348-362, 385-400, 426-444, 468-480, 488-500, 540-565, 656-668, 680-697, 760-790
1	29dcbb	600	Starling Tank and Steel Co.	1959	37R	5	Qb-Ql	J, E	D	10R	..	28	5,125	1-59	B37, D, F, P434-37
1	29dcdc	180	F. Mikalido	1950	36.5	48	Qb-Ql	T, E	Irr	366M	..	..	5,131	..	A5, F, P418, 755
1	29dcdd	30	F. Palombo	1955	63.3	48	Qb-Ql	T, E	Irr	..	..	37.0	5,135	4-11-62	A10, B62, D, D, P43-62; WL(7-11-56) 40.8; M50
1	29ddaa	1,250	B. Aragon	1960	61.0	18	Qsa-Ql	T, E	Irr	200R	3	..	5,143	10-13-60	A57, B61, D, D, F
2	30abaa	5,150	H. Priola	1953	420R	6 to 4	Kdlc	..	D	830R	60	4	5,071	11-13-53	B30, D, F, P435-362, 390-410
1	30cbcb	1,050	Northfield Co.	1955	30R	48	Qpp-Ql	..	PS	1,018M	12.1	4	5,083.8	10-10-55	AT, D
1	30cadb	1,700	E. Lambuth	1953	27.5	48	Qpp-Ql	C, G	Irr	1,300R	25	1.8	5,080	8-23-56	D
1	30cadc	1,550	Dewott	1953	30R	36	Qpp-Ql	T, E	Irr	400M	11.1	1/4	5,181	8-23-56	B30, D, F, P410, Su
1	30cdca	350	B. Sato	..	30.0	36	Qpp-Ql	T, E	Irr	550M	6.8	1/2	5,085.7	4-10-62	AL20, Su, T57; WL(10-10-55) 6.5; WL(11-5-57) 7.1
1	31aadc	4,020	G. Melchior	1956	66R	6	Qpp-Ql	..	Irr	..	..	27	5,022	..	B50, D, F, P410-66
2	31bbdc	4,150	B. Sato	..	26.7	48	Qpp-Ql	C, E	Irr	..	..	3.0	5,088	10-10-55	D
2	31cbac	1,750	Adams City Greenhouses	1957	773R	8 to 4	Kdlc, Kdlc	8, E	Irr, B	25R	..	..	5,130	..	B48, D, F, P438-308, 391-529, 619-754
1	31ccdc	1,380	.. do ..	1952	52R	48	Qb-Ql	C, E	AC	220R	14	1-1/2	5,132	6-26-56	B52, D, D, F, P442-52
1	31cbcc	2,300	A. Tani	1950	21.5	36	Qpp-Ql	T, E	Irr	..	..	5.7	5,095	8-22-56	D, F
1	31cdca	1,010	Not known	..	31R	6	Qb-Ql	Cyl, H	D	..	..	27.0	5,131.8	4-10-62	D, F, WL(11-6-57) 27.1
2	31dced	150	Skelly Oil Co.	1954	751R	8 to 6	Kdlc, Kdlc	S, E	Ind	60R	..	287.3	5,155	7-11-57	B47, D, F, L
2	31ddcb	600	Rainbo	1955	808R	8	Kdlc, Kdlc	T, E	Ind	B40R	35	..	5,130	11-4-59	B60, D, F, L; Tch300-425, 490-535, 600-760
1	32aac	4,700	F. Polombo	..	64R	..	Ql	..	D, B	..	..	..	..	..	WS
2	32aadd	4,000	South Adams Water and Sanitation District	1959	782	10	Kdlc, Kdlc	T, E	PS	178M	130	..	5,150.0	3-25-58	B100, D, F, EL, G, H, H22; L, S; Tch270-420, 520-782
1	32aedd	4,000	.. do ..	1958	100R	16	Qb-Ql	T, E	PS	1,000R	12	..	5,150	3-25-58	B100, D, F, G, H, H30; Tch50-100
1	32bdc	1,450	T. Hunt	..	71.2	48 to 14	Qb-Ql	J, E	Irr, L	..	..	62.6	5,155	7-11-56	D
2	32bdc2	1,400	.. do ..	1889	900R	6 to 4	Kdlc, Kdlc	Cyl, L	D	..	..	255.8	5,160	7-11-56	D, F, T42
1	32ddda	60	Bay Petroleum Co.	..	64.1	12	Ql	T, O	W	300R	..	49.4	5,170	7-11-56	D
1	31aadc	2,650	Rocky Mountain Arsenal	1958	82.0	4	Ql	Port, W	O	15R	..	52.1	5,170.3	2-7-58	B81.2; Core, L, S; S60, 3-68.7, 70.2-78.6
1	33bcb	3,630	.. do ..	..	47.6	6	Qb-Ql	M	N	..	..	41.7	5,150.5	11-6-57	D, F, WL(9-6-55) 44.5; WS

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
	C2-67-31ccca	600	4,650	Rocky Mountain Arsenal	1958	114	4	Qb,Q	M	0	10R	..	5,164.0	3-10-50	B112.1; Core; Ss; Sc103.9-111.5; SL
1	14ddad	900	150	..	31.6	10	Qes,Q1	M	Ind	..	..	26.5	5,109	9-0-55	Dr; P122-31; W8
1	15abaa	5,150	1,500	..	55.0	4	Qes,Q1	M	0	..	..	5.8	5,209.5	9-12-57	B52.2; Core; Sc40.3-42.3; SL
1	15adac	3,600	150	..	42.0	4	Qes,Q1	M	0	..	..	12.2	5,236.4	9-13-57	B39.3; Core; L; Sc24.0-26.0
1	15bbda	4,300	3,900	..	40.3	30 to 8	Qes,Qv	M	0	..	..	35.3	5,215.5	9-6-55	D
1	15bbdd	4,250	4,150	..	45.0	4	Qes,Qv	M	0	..	..	31.4	5,210.0	9-10-57	B13.4; Core; L; Sc34.2-36.2, 37.0-39.0
2	15bbdd	3,450	3,600	..	126	3	Tkdu	M	M	..	..	88.4	5,220	9-6-55	Dr; W8
1	15cddb	1,200	3,850	..	48.0	4	Qes,Qv	M	0	..	..	40.8	5,232.3	10-3-57	B41.2; Core; Ss; Sc39.2-41.2; SL
1	16bbda	4,420	4,250	..	30.0	4	Qes	M	0	..	..	20.0	5,238.9	9-26-57	B22.9; Core; L; Ss; Sc13.2-15.2, 16.6-20.6
1	16bdcd	2,600	3,600	..	42.0	4	Qes	M	0	2R	..	3.9	5,234.5	2-21-50	B38.0; Core; Sc15.2-23.8; SL
1	16cbdd	1,420	4,200	..	36.0	4	Qes	M	0	<1/4R	..	7.0	5,243.9	2-10-58	B27; Core; Sc16.0-24.6; SL
1	16cccd	100	4,700	..	31.0	4	Qes	M	0	4M	12	1/2	5,263.9	3-6-62	B23.1; Core; GE; Sc12.0-15.0, 18.0-27.0; SL
2	C2-68-4aaba	5,000	850	E. Whytal.	1948	4,600R	..	..	Oil	..	..	..	..	..	Thick coal at 400 feet; reported water under high pressure at about 400 feet
2	4badc	4,050	3,150	W. Vogler	1948	1,330R	5	K1b,K1a,Kfm	T,E	D,S,Sw	10R	..	5,403	4-23-57	Dr; P1; OH(1,185-1,330) WSP
2	4bdad	3,750	3,100	..	1,300R	6	K1b,K1a,Kfm	T,E	M	21R	235	..	5,400	4-23-57	Dr; U(1957)
2	4bdba	3,750	3,300	..	1,800R	6	K1b,K1a,Kfm	Cyl,E	D,S,Sw,E	..	250	..	5,400	4-23-57	Dr; P1,300-1,750
2	4caad	2,030	2,750	P. Marion	1959	600R	6 to 4	Kmac,Kdic,Klu	Cyl,E	D,S	8R	..	5,360	6-26-59	Dr; L; P1380-393, 416-462, 484-508
2	10bba	5,180	4,050	T. Wolfkill	1957	700R	6 to 4	Kmac,Kdic,Klu	S,E	D	20R	..	5,450	..	Dr; L; P1500-700; T54; WSP
2	14edcc	2,750	1,050	A Hill	1954	560R	6 to 4	Kdic	Cyl,E	D	3R	75	5,315	10-14-54	DL; Dr; Tch440-460, 480-500, 520-540
2	15abab	5,220	1,850	Highland Memory Gardens	1954	825R	8 to 6	Kmac,Kdic	S,E	Irr	18R	35	5,383	10-21-59	Dr; L; P1355-615
2	16daaa	2,480	320	Deza Estates	1956	800R	6 to 5	Kmac,Kdic	T,E	PS	..	..	5,483	3-15-57	Dr; EL; GRL; P1340-380, 448-470, 513-517, 558-580, 600-620, 692-714, 715-756, 778-800; Ss; SL
2	17acbc	3,500	2,420	Ruston Heights Airport	1946	1,023R	6	Kmac,Kdic,Klu	Cyl,E	Ind	10R	..	5,550	..	Dr; L
2	19ccbb	1,250	5,150	Northwest Water Corp.	1955	1,591R	8 to 6	K1b,K1a,Kfm	..	PS	50R	235	5,500	6-30-55	DL; Dr; EL; Tch1,240-1,330, 1,380-1,580
2	19ccbb2	1,250	5,150	..	716R	10 to 8	Kmac,Kdic	S,E	PS	85R	160	24	5,500	8-30-55	DL; Dr; EL
2	19ddbd	700	750	..	740R	10 to 8	Kmac,Kdic	S,E	PS	100R	61	24	5,528	3-6-56	DL; Dr; EL; Tch460-740
2	19ddca	650	750	..	1,630R	8 to 6	K1b,K1a,Kfm	S,E	PS	41M	..	..	5,528	5-6-57	Dr; EL; L; Tch1,300-1,630
2	20accd	2,870	2,070	Federal Heights	1954	750R	8	Kmac,Kdic	T,E	PS	40R	..	5,525	8-60	Dr; W(1954)385
2	20cdad	30	2,900	Northwest Water Corp.	1955	750R	10 to 8	Kmac,Kdic	..	PS	100R	170	5,515	6-9-55	DL; Dr; EL; Tch185-385, 495-725
2	20cdad2	30	2,900	..	1,656R	8 to 6	K1b,K1a,Kfm	S,E	PS	100R	198	24	5,515	6-12-55	DL; Dr; EL; Tch1,325-1,640

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
2	C2-68-20dbcc	1,450	Federal Heights.	1959	780R	8 to 6	Kdmc, Kalc	T, E	PS	40R	..	505	5,514	5-8-58 DL; Dr; PD; Tch510-714, 716-758; WS	
2	20dbcc2	1,400	.. do ..	1940	2,200R	8 to 4	Klb, Kla, Kfm	T, E	PS, Ot	50R	..	482.4	5,514	11-10-60 Dr; Gal. Plugged back to 1,760 feet	
2	20dcda	600	.. do ..	1959	792R	7	Kdmc, Kalc	M	PS	40R	..	494.5	5,475	11-10-60 Dr; L; Tch506-660, 682-704, 770-792, Wt(7-55)510	
2	21dcdb	650	E. Camenisch	1910	640R	6	Kdmc, Kalc	Cyl, E	D	3R	..	190	5,440	1954 DL; Dr	
2	23cbdb	2,820	Northwest Utilities Co.	1953	710R	8 to 6	Kdmc, Kalc	T, E	PS	94M	75.2	48	5,283.2	1-10-58 AT; Dr; DL; Dr; PD; Wt(9-13-53)238.8; WS; WSr	
2	23cbdb2	2,600	.. do ..	1954	1,446R	8 to 6	Klb, Kla	S, E	PS	44M	262.9	48	5,284.5	1-10-58 AT; Dr; PD; L; Wt(3-25-54)83.2; WS; WSr	
2	25aada	4,300	.. do ..	1954	750R	12 to 6	Kdmc, Kalc	S, E	PS	74M	150.6	48	5,097	1-10-58 AT; Dr; DL; Dr; EL; F2316-415, 472-486, 620-630, 678-688, 726-736, Wt(8-7-54)62.4	
1	25aadc	3,980	Dickers.	..	45R	48	Ol	M	Err	500R	..	23	5,097.6	1-19-55 WS(3) D; DL	
1	25aada	4,050	Northwest Utilities Co.	..	..	..	Op, Ol	M	PS, E	..	..	..	5,096	.. U(1958)	
1	25aada2	4,100	.. do ..	..	35.7	..	Op, Ol	T, E	PS	..	..	21.7	5,095	4-10-62 D; Wt(11-6-57)21.0; Wt(1-10-58)21.7	
1	25addda	3,100	.. do ..	1954	30R	48	Opp, Ol	M	PS	750M	21	5	5,080	.. D	
1	25addd	2,950	.. do ..	..	26R	48	Opp, Ol	M	PS	1,040M	17.5	7.0	5,080	4-1-58 AT; Dr; Wt(8-30-54)4.2	
1	25addd2	2,800	.. do ..	1954	30R	48	Opp, Ol	T, E	PS	650M	4	6	5,080	.. D; PD; WS; WSr	
1	25addd3	2,650	.. do ..	..	30R	48	Opp, Ol	M	PS	750R	..	7.2	5,085	4-1-58 D	
2	25bdac	2,950	Western Concrete Pipe	1956	240R	4	Tkdu	S, E	Ind	10E	..	..	..	.. Dr	
1	25daac	2,500	Northwest Utilities Co.	1954	26R	48	Opp, Ol	T, E	PS	500R	..	7.3	5,085	4-1-58 D	
1	25daac	2,100	A. Vantorno	..	24.0	24	Op, Op, Ol	C, M	Err	..	..	13.5	5,094.4	4-30-58 A20; D; F218; Su	
2	25dccc	3,300	B. Yamashita	..	250R	4	Tkdu	D	G	..	..	..	..	.. Dr	
2	27daaa	1,750	E. Rabinowitz	1953	105R	5	Tkdu	..	D	85R	25	75	5,270	10-14-57 DL, Dr	
2	27dbbb	1,250	W. Weingarten.	1959	605R	6 to 4	Kdmc, Kalc	Cyl, E	D, S	50R	..	315	5,240	2-5-59 DL; Dr; Tch421-444, 467-490, 536-582	
2	28bccc	3,080	Baker Metropolitan Water and Sanitation District	1959	770R	9	Kdmc, Kalc	S, E	PS	80M	30	..	5,503	7-20-59 B11; Dr; EL; L; Tch497-770	
2	29cbcc	2,050	Belleview College.	1961	735R	8	Kdmc, Kalc	S, E	Sch	825R	15	..	5,540	1-14-61 DL; Dr; H12; F4522-692, 706-715	
2	29cbdd	2,150	.. do ..	1930	1,626R	20 to 8	Klb, Kla, Kfm	T, E	Sch	100R	..	250	5,541	11-14-56 B10; Dr; L; OH(1, 372-1, 626); U(1961)	
2	30caac	2,120	Northwest Water Corp.	1955	660R	10 to 8	Kdmc, Kalc	S, E	PS	120R	138	..	5,410	4-23-55 DL; Dr; EL; GE; Tch 120-300, 355-500, 555-575, 605-640	
2	30caac2	2,120	.. do ..	1955	1,601R	8 to 6	Klb, Kla, Kfm	S, E	PS	100R	310	..	5,410	4-20-55 DL; Dr; EL; F21, 160-1,490	
2	31acab	3,900	City of Westminster.	1947	703R	12 to 10	Kdmc, Kalc	..	PS	212R	68	..	5,350	.. Dr; EL; L; SL; WS. Well destroyed, 1960	
2	31caab	2,550	.. do ..	1953	700R	10 to 8	Kdmc, Kalc	T, E	PS	130M	50	24	5,333	8-53 DL; Dr; EL; PD; WS; WSr	
2	31caab2	2,500	.. do ..	1954	1,546R	8 to 6	Klb, Kla, Kfm	T, E	PS	150M	..	20	5,333	1960 Dr; EL; PD; L; WS; WSr	
2	31dcda	500	.. do ..	1936	542R	..	Kdmc, Kalc	T, E	PS	90R	28	8	5,304	10-36 DL; Dr; WS. Well deepened from 369 feet to 474 feet	
2	31ddcb	350	.. do ..	1929	495R	12 to 8	Kdmc, Kalc	M	PS	75R	..	150	5,300	1929 DL; Dr; OH(474-495). Destroyed	
2	32abbb	5,250	Fairview Construction Co.	1954	..	..	Kdmc, Kalc	..	PS	75R	45	48	5,414	6-21-54 AT; Dr	
2	32acdb	3,250	City of Westminster.	1952	606R	10 to 8	Kdmc, Kalc	T, E	PS	120M	..	..	5,370	2-52 DL; Dr; WS	
2	32bddd	2,800	W. Walden.	1957	508R	6 to 4	Kdmc, Kalc	T, E	PS	10R	..	..	5,365	10-21-59 DL; Dr; F410-508	
2	32ccdd	1,600	City of Westminster.	1955	1,548	..	Klb, Kla, Kfm	T, E	PS, E	145R	..	..	5,328	11-14-56 DL; Dr; EL; U(1960); WS	

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Length to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
2	33ccc2	1,580	City of Westminster	1954	624R	10 to 8	Kdnc,Kdlic	T,E	P8	160R	300	24	5,328	10-12-60	DL; Dr
2	33ccb	1,180	do	1953	620R	10 to 8	Kdnc,Kdlic	T,E	P8	150M	..	..	5,333	12--53	DL; Dr
2	33abdb	4,480	General Water Works	1954	693R	10 to 8	Kdnc,Kdlic	T,E	P8	65M	114	24	5,305	9-19-60	AT; DL; Dr; EL; FD; P3340-358, 427-452, 464-476, 494-530, 566-623; WL(10-54) 317, WS
2	33abdb2	4,610	do	1957	1,560	8 to 6	Klb,Kla,Kfm	T,E	P8	99M	436	24	5,370	4-27-57	DL; Dr; EL; FD; P3320; WS
2	33decc	60	Baker Water District	1950	651	9	Kdlic	T,E	P8	75M	300	..	5,250	7-11-50	DL; Dr; EL; Tsch396-650
2	34adda	1,100	Zeefer Food Products Co.	1954	445R	6 to 4	Kdnc	S,E	E	10R	..	..	5,192	1954	D; DL; Dr; P3385-445; Su
1	34add	1,625	J. Saccomano	1930	35.5	18	Op,Ol	T,E	Irr	..	..	..	5,149.8	4-1-58	Dr
1	34dda	1,880	M. Larson	1936	30.7	18	Op,Ol	T,E	Irr	..	..	..	5,155.2	4-10-58	Dr
1	34ddc	280	J. Saccomano	1946	31.5	48 to 24	Op,Ol	T,E	Irr	..	..	..	5,149.7	4-1-58	AL4; D; Su
2	35aca	4,420	A. Croce	1933	413R	6 to 4	Kdnc	S,E	Irr	150R	..	..	5,150	..	Dr
1	35aac	4,680	L. Marchese	1926	22.2	14	Op	C,G	Irr	..	..	..	5,134.9	8-7-56	A5; D; Su
2	35cab	3,860	South Adams Water and Sanitation District	1950	500R	8 to 6	Kdnc	S,E	Sch	12R	100	18	5,188	8-25-56	DL; Dr; P430-480
1	35cab	2,350	C. Larusso	1920	14.5	12	Op	C,E	Irr,Pr	..	..	..	5,134.3	3-25-58	Dr
2	35cac	2,200	do	1920	500R	6	Kdnc	Cyl,E	D	..	..	..	5,135	1957	Dr
1	35cac2	2,050	do	1954	32.0	18	Ol	T,E	Irr	200E	4	3/4	5,133.3	3-25-58	AL0(with 2 walls); D; P315; Su
1	35cad	1,340	M. Pedotto	..	42.1	24	Op,Ol	T,E	Irr	260M	6.2	1/6	5,140.5	4-30-58	A4.5; D; Su
2	35cbcb	1,900	F. Adducci	..	26.0	16	Op,Ol	T,G	Irr	150E	..	..	5,149	3-25-58	A5; Dr; Su
2	35cbcb2	1,900	do	1920	500R	3	Kdnc	Cyl,E	D	..	..	..	5,148	3-25-58	Dr
1	35cea	1,300	A. Marrone	1954	27R	12	Op,Ol	T,E	Irr	..	..	..	5,138	8-7-56	A5; D; Su
1	35cead	670	F. Gaccetta	1955	40R	18	Op,Ol	T,E	Irr	150M	..	..	5,140.5	4-28-58	A5; D; P315; Su
2	35cbd	4,850	V. Pedotto	..	500R	6	Kdnc	J,E	D	..	..	..	5,145	..	Dr
1	35cbd2	700	do	..	17.0	48	Op,Ol	J,E	Irr	185M	..	..	5,144.5	3-25-58	D; T53
2	35ccc	250	V. Albanese	..	27R	6 to 4	Tdau	Cyl,E	D	..	..	..	5,145	..	Dr
1	35ccc2	15	do	1925	15R	36 to 18	Op,Ol	T,E	..	..	..	..	5,140.8	4-1-58	D
2	35ccc3	..	A. Ventorno	1959	61R	6 to 4	Kdnc,Kdlic	..	D,G	824R	60	..	5,140	8-12-59	B39; Dr; L; Tsch416-616
1	35cdc	20	D. Albanese	1933	26.7	18	Op,Ol	T,E	Irr	..	..	..	5,141	8-7-56	A5; D; F; Su
1	35cdc	700	V. Pedotto	..	31.5	18	Op,Ol	C,E	Irr	..	..	..	5,141.5	3-25-58	Dr
1	35cdad	680	J. Pedotto	..	40R	18	Op,Ol	T,E	Irr	..	..	..	5,132	3-31-58	B40; D; GE; P315
1	35cdbe	680	do	..	40R	18	Op,Ol	T,E	Irr,Pr	175M	11	..	5,141.7	4-28-58	D; GE; P315; Su
1	35cded	10	A. Yantorno	1948	43.0	24	Op,Ol	T,E	Irr	..	..	..	5,145.7	3-25-58	AL0; WL(8-6-56) 17.4
1	35cdde	400	do	..	45.0	24	Op,Ol	J,E	D	..	..	..	5,140.5	3-25-58	DO
1	35cded	2,000	J. Motella	1956	35R	6	Op,Ol	J,E	D	10R	..	..	5,120.7	9-1-56	B30; Dr; L
1	35daba	2,600	G. Rende	1954	38R	18	Op,Ol	Port,Irr	Irr	500R	..	..	5,129	4-30-58	Dr; u(1958)
1	35dabb	2,610	L. Motello	1940	38R	16	Op,Ol	T,G	Irr	..	..	..	5,128.0	4-30-58	A22; B38; Dr; F
1	35dab	1,950	A. Marzone	1936	30.0	..	Op,Ol	T,Irr	Irr	..	..	..	5,125	8-6-56	AL1; D; Su
1	35dbaa	2,630	E. Graves	1940	34R	16	Op,Ol	T,M	Irr	..	..	..	5,125.5	4-28-58	AL1; D; F; Su
1	35dbbc	2,220	J. Mazzotti	1942	31.6	21 to 18	Op,Ol	T,E	Irr	230M	..	..	5,131.5	7-30-56	WL(8-1-56) 11.9
1	35dbdb	1,950	R. Molinaro	..	40R	16	Op,Ol	T,E	Irr	180M	4.7	1/6	5,133.0	4-30-58	AL0; D; F; GE; P320; Su; T53
1	35decc	910	T. Milano	1930	30.1	12	Op,Ol	C,E	Irr	..	..	..	5,129.3	4-30-58	AL0; D; F; Su
1	35debc	800	J. Mazzotti	1940	26.8	37 to 16	Op,Ol	T,E	Irr	250R	6.6	1/4	5,135.3	4-30-58	AL0; D; F; GE; P325; Su
1	35decb	560	J. Perry	1935	40R	24	Op,Ol	T,E	Irr	..	..	..	5,134.3	4-30-58	AL0; D; F; GE; P325; Su
1	35decb	300	J. Mazzotti	1926	32R	39 to 10	Op,Ol	T,M	Irr	..	..	..	5,123	7-30-56	AL0; D; F; GE; P315; Su
1	35decb	4,800	B. Yamashita	..	15.4	36	Opp,Ol	C,G	Irr	..	..	..	5,099	8-1-56	A20; B32; D; Su
1	35eada	3,240	Inland Sand and Gravel Co.	1957	29R	48	Opp,Ol	T,E	Ind	..	..	..	5,095	3-27-57	D; DL; P36
1	35eada2	3,220	do	..	25R	36	Opp,Ol	T,E	..	..	..	..	5,095	..	..

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north (feet)	Map distance west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use Yield of (gpm)	Drawdown (feet) (hours)	Depth of water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
<b>C2-68-</b>															
1	36badd	4,010	2,860	T. Cosal	1951	21.7	48	Op. Ql	M	Irr	400R	11.3	5,099.2	8-1-56	D
1	36bacc	2,490	5,050	G. Lorenzo	1954	32.5	16	Op. Ql	C.E	Irr, Ot	125R	21.8	5,126	4-10-62	A10; D
1	36bdac	3,820	2,820	North Washington Water and Sanitation District	1956	18R	24	Op. Ql	T.E	PS	450R	7.0	5,100.1	6-15-56	A7; B18; D; Qy125; L
1	36bdae2	3,670	2,650	do	1959	25R	24	Op. Ql	T.E	PS	1,000M	13.0	5,093	9--60	A7; D; DL; FD; Qy225; MS
1	36cacb	1,660	3,930	A. Gerace	1945	29.7	18	Op. Ql	T.E	Irr		13.7	5,110	4-10-62	A17; D; WL(1954)16; WL(8-7-56)11.4
1	36cbba	2,600	4,730	G. Wazsueca	1921	31.9	38 to 18	Op. Ql	T.O	Irr, Ot		18.7	5,120.5	11-5-57	A7; B18; D
1	36cbac	1,850	4,250	Forward	1953	32.4	48	Op. Ql	T.E	Irr	730M	5.6	5,097	8-21-56	D; P115; T56
1	36cbdc	1,310	4,870	do	1956	32.1	36	Op. Ql	T.E	Irr		8.8	5,097	8-21-56	D; P115
1	36cbdc	10	1,800	B. Bromley	1956	46R	24	Op. Ql	T.E	Irr		7.0	5,100	4-6-56	B38; DL; Dr
1	36cbdb	600	500	do	1956	46R	6	Op. Ql		D	820R	11	5,100	4-6-56	B38; DL; Dr
1	36cdad	140	20	do	1936	20R	36	Op. Ql	T.E	Irr		7.7	5,099	8-22-56	A9; D
<b>C2-69-</b>															
2	1cbbcb	1,750	5,150	Broomfield Water and Sanitation District	1959	1,007R	8 to 6	Klb, Klb, Kfm	S.E	PS, E	20R	236.0	5,325	10-8-59	Dr; EL; L; P2777-1,007; WL(10-3-60)251.9
2	2bbab	5,150	4,400	do	1952	1,140R	8 to 6	Klb, Klb, Kfm	S.E	PS	35R	235	5,435	1--52	Dr; L; P2120; WS
2	5cdca	600	4,250	T. Miles	1949	2,919R	6 to 4	Klb, Klb, Kfm	S.E	Oil		200	5,533	11-24-56	Dr; EL; L; S; TCh103
2	14bccc	4,230	5,720	Wallace School	1956	1,022R	6 to 4	Klb, Klb, Kfm	S.E	Sch	32R	130	5,379	5-2-57	DL; Dr; EL; L; S; TCh103
2	18cccc	150	5,000	K. Church	1957	1,030R	6 to 4	Klb, Klb, Kfm		D	820R	202	5,600	9-12-60	Dr; EL; L; S; TCh103
1	19cbba	4,020	2,150	A. Ludwig	1960	42R	6	Ql, Kdl	J.E	D	10R	5	5,552	10-20-59	B39; Dr; EL; L; TCh103
2	25cdca	2,480	250	B. Parr	1958	596R	6	Kdlc	T.E	PS	838R	20	5,390	11-5-58	DL; Dr; EL; L; TCh295-375; U(1960)
2	25cdca	120	1,600	do	1958	575R	6	Kdl	M	PS	832R	18	5,368	10-28-58	B14; Dr; L; P215-61; U(1960)
1	26baab	5,190	3,100	A. Craig	1956	61R	6	Qe	J.E	D	4R	43	5,473.4	5-22-57	B15; Dr; EL; GE; L; TCh180-210, 230-240, 267-403, 540-585
2	26baab2	5,220	3,050	C. Taylor	1957	603	4	Kdlc	S.E	PS	817R	35	5,470	4-9-62	Dr; L; TCh40-50; WL(10-28-58)9.4
1	26baab3	5,200	3,240	B. Adams	1957	55R	5	Qe	J.E	D	7R		5,473.6	10-7-58	Dr; EL; L; TCh120-400
2	27aeaa	5,180	70	R. Parr	1958	400R	6	Kdlc, Kdlc	M	PS	843R	70	5,500	11--56	85; Dr; EL; L; P2144-167, 214-239
2	29baaa	5,100	2,670	R. Jackson	1956	375R	6 to 4	Kdlc	S.E	D, S, Pr	5R	110	5,588	8-22-58	DL; Dr; EL; L; WS
2	30dbcc	1,390	2,400	J. Ferch	1956	196R	6	Kdlu	Cyl, E	D, Irr, L	10R	46	5,650	4-9-62	Dr; GE; L; TCh17-32; WL(10-15-58)13.5
2	30dbcc	1,800	1,600	do	1956	193	5	Kdlu	M	D		116.8	5,650	8-21-58	DL; Dr; EL; L; P215-55
1	31cbcd	1,350	4,830	Malton Presbyterian Church	1956	32R	6	Qe	J.E	D	40R	2	5,566.7	8-21-58	DL; Dr; EL; L; P215-55
2	31ccdb	470	4,300	F. Luckey	1940	300R	6	Kdlc, Kdlc	Cyl, E	D, Irr, L	18R		5,564	8-21-58	DL; Dr; EL; L; P215-55
1	31ccdd	220	4,060	L. Nelson	1956	55R	7 to 5	Op. Ql	J.E	D, Irr, L	89R	19	5,559.3	8-21-58	DL; Dr; EL; L; P215-55
2	32adcc	2,880	1,150	M. Krupicka	1957	125R	6 to 5	Kdlc	J.E	D	830R	63	5,545	8-21-58	DL; Dr; EL; L; P215-55
2	32bccc	3,410	5,100	R. Jensen	1958	90R	6 to 5	Kdlc	J.E	D		4.6	5,480	10-14-58	B6; Dr; EL; L; P215-55
1	32bccc	2,900	2,900	M. Finley	1960	23R	18	Op. Ql	J.E	Irr, G	28	20	5,498	11-5-59	DL; Dr; EL; L; P215-55
2	32bdab	3,940	3,000	E. Jensen	1958	100R	6 to 5	Kdlc	J.E	M	7M		5,560	11-5-59	DL; Dr; EL; L; T60
2	32dad	2,080	140	C. Strohmayr	1957	117R	6	Kdlc	S.E	D, Irr, L	8R	45.1	5,560	6-12-61	Dr
2	32dadb	1,850	1,100	E. Bohling	1956	100R	4	Kdlc	J.E	D, Irr, L	7R	29	5,500	8-21-58	DL; Dr; EL; L; P215-55
2	32dadb	200	80	City of Alameda	1956	500R	6	Kdlc, Kdlc	S.E	PS	97M	178	5,546	10-14-58	B6; Dr; EL; L; P215-55
2	34bbab	5,280	4,450	Oberon Acres	1955	760R	8	Kdlc, Kdlc	S.E	PS	50R		5,555	11-5-59	DL; Dr; EL; L; T60
2	34bbab	2,400	2,500	D. Schneider	1958	545R		Kdlc, Kdlc	S.E	D	12R		5,475	11-5-58	B30; Dr; EL; L; T60
2	36ddda	500	300	Shoenberg Farms	1949	520R	8 to 6	Kdlc, Kdlc	S.E	D, Ind	75R		5,331	6-12-61	Dr

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth of water	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
C2-70-	1	180	Church Ranch	1959	5.7	36	Qp	N	M	15R	240	3.5	5,600	4-9-62	D; T47; WL(4-9-60)3.6
	2	5,150	M. Church	1959	430R	5 to 4	Klb, Klb	S, E	D			90	6,183	4-22-59	B30; Dr; EL; L; P1207-248; 262-412
	1	22acda	120 Not known			48	Qp	J, E	N			.0	5,920	4-2-60	D
	2	22acdb	3,650 Public Service Co. of Colo.		1,073		Klb, Klb	T, E	Ind			398	6,059	1959	DL; EL; Sa
	2	22acda	2,000 Leyden Core Hole		919R								5,873.4	4-29-61	DL
C2-71-	1	1,550	E. Stringer	1961	1,220R	8	Klb, Klb		D	30R	535	365	5,760	4-29-61	DL; Dr; OH(1,051-1,220)
	2	25acda	Public Service Co. of Colo.	1961	812R	9 to 7	Klb, Klb	S, E	O	20R	500	230	5,680	3-21-61	B28; Dr; EL; GE; H9-7; L; P1253-795; Sa. Originally drilled to 1,252 feet
	2	26cdac	do	1961	715R	18 to 10	Klb, Klb	T, E	Dr	550R	400	260	5,715	2-11-61	Dr; H24-17-12; L; P1253-795
	1	26cdcc	Leyden Water District	1928	Spring		Or		PS	F6E			6,128.3	12-15-58	FD; WS
	2	27dbdc	Patridge	1957	791	6	Klb, Klb	J, E	N	10R	20	10.3	5,633.2	10-17-58	B14; Dr; FD; L; WS
C2-71-	1	1,650	Public Service Co. of Colo.	1961	784R	18 to 13	Klb, Klb	S, E	Dr	600R	400	300	5,765	2-20-61	DL; Dr
	2	28cdad	G. Lindsey	1945	180		Kl	N	N			34.7	5,906.4	10-14-58	Mine shaft
	1	28cdad	do	1945	24.0		Qp, Qb	J, E	D, S			7.7	5,814.4	4-9-62	WL(10-14-58)7.9
	2	29acbb	S. Strang		Spring		PC		D	F			7,725	12-7-60	FD; F2; SG
	1	29acbb	J. Drohan	1952	70R	18	Qb, Ql	N	Irr, Ot			20.1	5,388.6	11-4-57	Dr; U(1956)
C3-65-	2	4,700	Union Pacific Railroad Co.	1956	8,375R				Oil				5,375		Dr; EL
	2	8bbbd	Monaghan	1956	8,438R				Oil				5,389		Dr; EL; Sa
	2	10bbca	Box Elder	1956	8,400R				Oil				5,436		Dr; EL
	1	11acdd	J. Drohan	1956	65.0	18	Qb, Ql	N	Irr			19.0	5,392	7-19-57	Dr; U(1957)
	1	11adcc	do	1956	64.6	18	Qb, Ql	N	Irr			21.0	5,392	7-19-57	Dr; U(1957)
C3-66-	1	11adcd	do	1947	71.0	18	Qb, Ql	T, E	Irr	642M	18.9	1/4	5,395	7-19-57	A80; B71; F; T54
	1	14abdd	do	1950	42R	18	Qb, Ql	T, E	Irr	345M	20.1Ry	1/4	5,420	7-12-57	A60; B42; Dr; F; T53
	1	14bbaa	J. Stewart	1951	55.3	18	Qb, Ql	T, E	Irr	345M	20.1Ry	1/4	5,418	7-12-57	A60; B50; Dr; F; T54
	1	14bba2	C. Vick	1951	60R	6	Qb, Ql		D			36	5,418	7-16-57	B55; Dr; L
	1	14cdcd	J. Stewart	1956	60R	18	Qb, Ql	T, E	Irr	147M	12.7Ry	1/4	5,435	7-16-57	A36; B60; Dr; F; T54
C3-66-	1	14ddcc	do	1952	50R	18	Qb, Ql	T, E	Irr	120M	11.8Ry	1/2	5,439.7	11-4-57	A36; F
	2	21dcca	do	1916	900R	6	TKdu, Kdmcc	Cyl, E	D	10E		170	5,658	1-22-59	Dr; FDI WS
	2	22dcca	H. Grimm	1917	897R	6	TKdu, Kdmcc		D, S	25R		190	5,291	9-11-59	Dr
	2	36daca	E. Epperson	1955	785R	6 to 3	TKdu, Kdmcc	S, E	D	20R	170	150	5,524	5-7-55	DL; Dr; FD; WSp
	1	36dada	L. Stuart	1959	690R	6	TKdu, TKdca	S, E	PS	25E		134.8	5,525.9	9-16-60	B16; Dr; EL; FD; L; P1265-400; 430-470, 500-530, 575-600, 620-670; WS
C3-66-	2	1dddb	J. Rouse	1957	8,640				Oil				5,401		EL
	2	2caac	C. Baxter	1939	4,704R				Oil				5,425		Dr; SL
	2	2cddb	do	1946	2,171R				Oil				5,430		Dr; SL
	1	4bcb2	H. Hendler	1955	39.0	6	Qes, Qb	J, E	Irr	400R		33.6	5,305.0	12-1-55	Dr; P120
	1	4bcb2	do	1955	42.6	18	Qes, Qb	T, E	Irr	400R		30.1	5,305.0	4-15-62	Dr; GE; L; P118-42; WL(12-1-55)33.6; WS
C3-66-	1	4cdad	J. Reither	1954	53R	6	Qes, Qb		D	B20R		32	5,330	9-29-54	B51; DL; Dr; P133-53
	2	5acac	Rocky Mountain Arsenal	1957	36.0	4	TKdu	N	O			22.5	5,297.0	10-23-57	B4.7; Core; L; SC22.8-28.8
	1	5cccd	do		19.0	36	Qp	N	O			18.2	5,284.8	9-2-55	Dr; WS
	2	5ddad	do		700R	3	Kdmcc	N	N			129.3	5,303	9-2-55	Dr
	1	6adad	do		15.9	7	Qp	N	O			5.9	5,253.7	9-2-55	Dr
C3-66-	2	6adad	do	1942	140R	6	TKdu	J, E	Ind, O	15R		17.3	5,259	9-9-55	B18; Dr; L; WS

Table 2.--Records of selected wells and springs--Continued

Plate number	Location	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, of power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet measure above and m.s.l.)	Date of measurement	Remarks
1	C3-66-6badd	4,920	Rocky Mountain Arsenal.	1957	30.0	4	Qes	N	O	..	..	9.0	5,247.5	10-18-57	B24.3; Core; L; Sc16.3-21.3
1	6cccb	500	.. do ..	..	45.5	..	Op.Qes	..	N	..	..	..	5,282	..	WS
2	7dbcb	1,750	.. do ..	1957	30.0	4	Tkdu	N	O	<1R	..	16.4	5,296.7	10-28-57	B23.9; Core; L; Sc16.8-21.8
1	8bbad	4,630	.. do ..	1957	30.0	4	Qes	N	O	8R	10	12.2	5,284.1	10-24-57	B24.4; Core; L; Sc14.9-20.4, 22.4-24.4
1	8daaa	2,400	.. do ..	..	14.5	30	Op	Cyl,N	O	..	..	11.2	5,302	9-2-55	D; WS
1	8dbba	1,000	.. do ..	1957	35.0	4	Qes	N	O	<1R	..	23.4	5,320.4	3-19-58	B28.7; Core; Sc21.9-28.2; SL
1	9bbcc	3,980	Jeremiasen and Moffitt.	1953	32R	18	Qes,Qb	T,E	Irr,S	250R	..	14.1	5,304.1	4-15-62	A40; B29; L; WL(12-1-55)16.2; WL(4-3-56)15.8 WL(11-6-57)15.5; WS
1	10badd	4,720	E. Matechke.	1954	70.7	16	Qes	T,E	Irr	..	..	41.1	5,359.2	11-6-57	A40; Dr; S
2	10bbab	5,150	.. do ..	1955	320R	6 to 4	Tkdu	S,E	D	14R	130	20	5,350	9-31-55	B53; Dr; L; PF200-320; WSP
1	10bbdd	4,020	.. do ..	1961	56R	18	Qes	T,E	Irr	200R	17	29.4	5,340	4-15-62	A60(with 3 wells); B54; Dr; L; WL(3-19-61)37
1	10bdaa	3,700	.. do ..	1953	60R	18	Qes	T,E	Irr	75R	18	40	5,358	1953	A20; Dr; Su
1	10bdab	3,900	.. do ..	1954	60R	18	Qes	T,E	Irr	75R	18	37.2	5,355	6-5-57	A60; Dr; Su
1	16caac	1,330	S. Custy	1956	54R	18	Qes,Qb,Ql	T,E	Irr	525R	19	28.2	5,351	4-15-62	A33; B50; Dr; L; Lo22.5-52.5; WL(4-56)24; WL(4-30-58)26.4
2	17aaad	4,900	B. Bollers	1955	269R	6 to 4	Tkdu	..	D	B10R	2	1-1/2	5,380	6-17-55	B34; Dr; L; Tch229-269; WS
1	17bdcd	2,960	.. do ..	1954	70R	18	Qes,Qb,Ql	T,E	Irr	800R	27	29.7	5,325.9	4-15-62	A80; B48; Dr; L; PF22-52; WL(12-1-55)18.6; WL(11-6-57)17.4; WS
1	18bcba	3,830	Miller and Co.	1955	76R	6	Qes	Cyl,W	S	..	..	13.1	5,290.6	4-15-62	Dr; WC912-1-55)12.3; WL(11-6-57)13.0
2	19dbbb	2,400	J. Miller.	1948	5,702R	8 to 6	Tkdu	..	Oil	..	..	..	5,358	..	EL; L
2	22abbc	4,800	O. Inman	1955	150R	6 to 4	Kdmc,Kdlc	S,E	D,S,IrrL	15R	..	45	5,398	10-5-55	Dr; PD; WSP
2	22cccc	150	W. Horkanz	1952	965R	6 to 4	Kdmc,Kdlc	S,E	D,IrrL	25M	40	240	5,440	8-29-56	A2; Dr; PD; WS
1	23adda	3,160	E. Hoyt.	..	17.3	48 to 8	Op.Qes	C,E	D	10E	..	11.5	5,419	2-11-61	DO
2	25cccc	200	37th School District	1954	723R	6 to 4	Kdmc	S,E	Sch,IrrL	12E	..	..	5,477	..	First Creek School
2	26ccad	680	L. W. Mack	1944	1,450R	..	Kdmc,Kdlc	T,E	PS,Fire	125R	..	250	5,500	7-61	Sky Ranch Airport
1	28cdde	350	W. Hopkins	..	44.5	24	Qb,Ql	T,E	Irr	250E	..	22.0	5,411.0	3-28-60	A50; Dr; Su; WL(5-13-58)19.8
1	28cdde2	450	.. do ..	..	45.6	18	Qb,Ql	T,E	Irr	..	..	21.4	5,409.0	3-28-60	Dr; U(1957-60)1; Su; WL(5-13-58)19.6
1	29cdad	730	Well Completions Inc.	1957	60R	7	Qb,Ql	..	D	B30R	..	18	5,383	11-24-57	B48; Dr; HB-6; L; Interference with cdda
2	30dadc	1,640	Colo. Interstate Gas Co.	1956	410R	6 to 5	Tkdu	S,E	D,IrrL	15R	65	3	5,363	10-15-56	A1; B21; Dr; EL; PD; L; PF32-410; WSP
2	31abca	4,600	C. Daessler, Jr.	1957	170R	6 to 4	Tkdu	Cyl,E	D,IrrL	3E	..	55.3	5,385	6-13-57	B45; Dr; PD; L; PF142-170; WSP
2	31cbdb	1,850	E. Chavers	1957	605R	5	Tkdu	S,E	PS	8R	..	321.8	5,350	11-3-59	B22; Dr; EL; PF306-309, 373-384, 432-443, 565-574
2	31cbdb2	1,800	.. do ..	1957	1,069R	5	Kdmc,Kdlc	S,E	PS	B25R	60	4	5,350	11-3-59	Dr; EL; L; PF735-835, 990-1,069



Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
C3-66-															
1	31ccca	500	D. Harvey.	1951	11.0	48	Qp,Qb	C,E	D,IrrL	15R	..	8.0	5,365.0	4-30-58	D
2	31cccd	50	B. Fowler.	1957	900R	6 to 4	Kmc	S,E	PS	20R	335	30	5,381	8-5-57	DL; Dr; P6558-680, 790-856
1	31ccdb	450	D. Harvey.	1957	JOR	6	Qp,Qb	J,E	D,IrrL	15R	20	10	5,369.0	8-6-57	B19; DL; Dr; FD; P617-25; WSP
2	31cdba	1,100	Green Acres Trailer Court.	1959	1,110R	6	Kmc,Kd,c	S,E	PS	40R	..	300	5,355	6-8-59	DL; Dr; P6740-850, 982-1,055
2	31cdcb	600	do	1957	1,160R	6 to 5	Kmc,Kd,c	S,E	PS	30R	245	8	5,365	12-9-57	B26; Dr; EL; Li; P6189-318, 658-688, 718-768, 805-870, 1,018-1,035, 1,084-1,110
1	31cdcc	250	H. Traubert.	1952	21.3	30 to 16	Qp,Qb	C,E	PS,E	..	..	12.4	5,385	4-27-62	B21; D; WL(8-5-57)11.1
1	31cdcd	280	do	1945	26.6	48	Qp,Qb	C,E	PS,E	350R	13	11.0	5,385	8-5-57	B18; D; DL; P68
1	31cdce	250	do	1945	160R	6	Tkdu	J,E	PS	BR	..	19.9	5,385	4-22-62	Dr; WL(8-5-57)80
1	31cdcf	200	do	1930	17.3	5	Qp,Qb	J,E	D	..	..	12.3	5,390	8-5-57	Dr
1	31cdcg	3,320	V. Stark	1941	28.9	40	Qb,Ql	T,E	Irr	162M	5.9	1/4	5,398	9-20-60	A75(with 3 wells); D; F; FD
1	31cdch	1,330	do	1941	28.4	42	Qb,Ql	T,E	Irr	236M	8.0	1/4	5,397	4-15-62	D; F; FD; WL(9-20-60) 14.4; WS
1	31cdci	1,330	do	1941	27.7	58	Qb,Ql	T,E	Irr	228M	7.5	1/4	5,397	9-20-60	D; F; FD
2	31cdcj	3,000	Baker.	1954	913R	6 to 4	Kmc	S,E	D	18E	..	370	5,424	7-26-56	DL; Dr
2	31cdck	600	M. Jones	1956	1,003R	6 to 5	Kmc	S,E	D	B15R	10	6	5,422	9-16-56	DL; Dr; P6894-914, 936-979; WSP
2	31cdcl	100	B. Glenn	1957	1,085R	4	Kmc,Kd,c	Cyl,E	Ind	25R	80	..	5,425	12-24-57	DL; Dr; EL; P6784-919, 1,045-1,073
1	31cdcm	1,470	E. Perrott	1954	..	..	Qb	C,E	Irr	100M	1	..	5,398	9-15-60	A20; Sump; in winter water rises to near land surface
2	31cdcn	950	do	1941	500R	6	Tkdu	Cyl,E	D	..	..	184.1	5,445	9-15-60	Dr; FD; WS
1	31daab	4,960	C. Headrick.	..	6.5	48	Qb	C,G	Irr	..	..	3.6	5,432.0	4-15-62	A200(with 5 wells); D; WL(5-13-58)3.6
1	31dabd	4,800	do	1942	45.1	48	Qb,Ql	T,E	D,S,Irr	450E	5	..	5,420.1	5-13-58	D; Su
1	31dadb	3,680	do	1944	42.0	48	Qb,Ql	T,E	Irr	450E	..	20.0	5,422.2	5-13-58	D; Su
1	31dadc	3,070	do	1942	44.5	24	Qb,Ql	T,E	Irr	250E	..	23.1	5,435.2	5-13-58	D; Su
1	31dada	280	do	1942	44.5	24	Qb,Ql	T,E	Irr	250E	..	24.7	5,437.3	5-13-58	D; Su
1	31dadb	70	do	1942	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	A160(with 2 wells); B41; D; FD; GE; P68; WSP
1	31dadc	4,320	E. Perrott	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	A160(with 2 wells); B41; D; FD; GE; P68; WSP
1	31dbec	3,350	do	1939	45.3	24	Qb,Ql	T,E	Irr	447M	12.5	..	5,413	9-18-60	B46; D; FD; WS
1	31dbed	1,500	E. Honnen.	..	32.0	24	Qb,Ql	T,E	Irr	300E	..	10.5	5,418	9-13-60	A20; Dr; Su
1	31dbed	1,500	R. Cowherd	1940	30.6	24	Qb,Ql	T,E	Irr	100E	..	7.7	5,437	9-14-60	A60(with 2 wells); Dr; Su
1	31dbdd	1,400	do	1940	27.0	48	Qb,Ql	T,E	Irr	100E	..	7.1	5,436	9-14-60	D; Su
1	31dbde	2,400	E. Honnen.	..	35.5	48	Qb,Ql	T,E	Irr	300E	..	15.8	5,431	9-13-60	A160(with 7 wells)
1	31dbde	1,470	do	..	44.1	56	Qb,Ql	T,E	Irr	300E	16.9	..	5,431	9-18-60	A160(with 7 wells)
1	31dbde	100	do	..	34.6	58	Qb,Ql	T,E	Irr	400R	..	11.3	5,427	4-15-62	A20(with dcd); Su; WL(9-13-60)11.0
1	31dbde	120	do	..	36.1	18	Qb,Ql	T,E	Irr	300E	10.5	..	5,432	9-18-60	FD; GE; WS
1	31dbde	120	do	1960	33.4	56	Qb,Ql	T,E	Irr	300R	..	12.8	5,430	9-13-60	..
1	31dbde	1,010	do	..	38.1	24	Qb,Ql	T,E	Irr	300R	..	15.2	5,430	9-18-60	..
1	31dbde	1,050	do	..	33.3	56	Qb,Ql	T,E	Irr	300E	11.9	..	5,430	9-18-60	..
1	31dbde	960	do	..	27.9	12	Qb,Ql	T,E	Irr	300E	..	19.7	5,428	9-12-60	..
1	31dbde	120	do	..	36.1	18	Qb,Ql	T,E	Irr	300E	10.5	..	5,432	9-18-60	FD; GE; WS
1	31dbde	400	do	..	29.1	56	Qb,Ql	T,E	Irr	300E	9.2	..	5,433	4-15-62	D; WL(9-18-60)14.8
2	31dbde	3,700	R. Kramer.	..	555R	6 to 4	Tkdu	S,E	D	B20R	125	3	5,460	7-17-56	DL; Dr
2	31dbde	4,740	H. Wells	1956	340R	6 to 4	Tkdu	S,E	D	B7R	125	3	5,435	5-10-56	DL; Dr. Measured yield of 14 gpm
2	31dbdd	4,630	I. Urban	1956	360R	6 to 3	Tkdu	..	D	B7R	125	3	5,443	4-26-56	DL; Dr; P6212-360
2	31dbdd	4,250	W. Silence	1954	525R	6 to 4	Tkdu	Cyl,E	D	B12R	65	6	5,445	3-11-57	DL; Dr; FD; P6270-315, 485-515; WSP
2	31dbab	2,500	Millie Addition	1956	946R	8	Kmc	T,E	PS	75R	190	24	5,440	11-4-59	Dr; EL; GR; L

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north (feet)	Map distance west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks	
C3-66-																	
1	34cbdd	1,450	4,150	H. Crisman	1956	60R	6	Qb, Ql	..	Irr/L	810R	..	1	5,441	5-12-56	Dr; L; P445-60	
2	34acce	2,650	2,600	W. Jamison Co.	1915	1,010R	..	..	..	Oil	..	..	..	..	..	Dr; SL	
2	35dbab	5,000	4,520	E. Dyer	1959	1,230	7	Kdmc, Kdlc	S, E	D, Irr, E, PS	75R	100	..	5,492	12-10-59	A20; DL; EL; P4798-987, 1,127-1,197	
2	35bcb	2,980	5,190	Eastlawn Memorial Gardens	1959	1,222	7 to 6	Kdmc, Kdlc	S, E	Irr	835R	80	8	5,512	5-20-59	B2; EL; L; P4846-862, 888-996, 1,099-1,204	
C3-67-																	
1	36cac	3,450	1,850	Rocky Mountain Arsenal	1957	22.0	4	Qes	N	O	..	..	..	5.2	5,261.5	9-19-57	B18.6; Core; PP; Sa; Scl0.5-12.5; SL
1	36bab	5,150	3,180	.. do ..	1957	35.0	4	Qes	N	O	..	..	..	6.9	5,264.9	11-28-57	B29.4; Core; Sa; SL
1	36bac	2,050	4,600	.. do ..	1957	20.0	4	Qes	N	O	<1R	..	..	..	5,262.2	..	B8.9; Core; Sa; Scl3.7-15.7; SL
1	36dad	200	50	.. do ..	1957	77.0	4	Qes	N	O	..	..	..	30.3	5,276.2	9-25-57	B75.2; Core; L; PP; Sa; Scl69.3-71.3, 72.1-74.1
1	2acbc	3,500	2,380	.. do ..	1957	30.0	4	Qes	N	O	<1R	..	..	18.7	5,254.0	10-18-57	B25.3; Core; Sa; Scl9.9-22.9; SL
1	3cbab	2,350	4,560	.. do ..	1957	110	4	Qv	N	O	..	..	..	76.1	5,209	11-7-57	B109.7; Core; Scl76.1-78.3, 79.8-89.5, 90.0-98.1; SL
1	3cbac	2,300	4,580	.. do ..	1958	112	4	Qv	N	O	14R	12	..	76.1	5,209.0	2-5-58	B110.1; Core; L; Scl101.8-110.2
1	3dbbb	1,060	1,280	.. do ..	..	48.0	6	Qv	Cyl, H	N	..	..	..	35.6	5,221.1	11-6-57	Dr; ML(9-1-55)37.8
1	4babc	4,220	3,720	.. do ..	1954	85R	16	Qv	T, E	Ind	650R	12.4	1/4	46.5	5,175	8-20-54	Dr
1	4bbbc	4,950	5,000	.. do ..	..	62.3	16	Qv	N	Ot	..	..	..	44.7	5,169.3	4-11-62	Dr
1	4bcaa	3,650	4,080	.. do ..	1918	97R	24	Qv	T, E	Ind	500M	8	64	50.5	5,180	7-16-53	Dr; B96; Dr; L
1	4bcad	3,450	4,030	.. do ..	..	61.8	2	Qv	N	N	..	..	..	58.8	5,180	9-1-55	Dr; T58
1	4cab	2,620	3,950	.. do ..	1955	108R	16	Qv	T, E	Ind	650R	..	..	77.1P	5,219	9-26-55	Dr; T58
1	4cdcb	350	150	.. do ..	..	72.5	6	Qv	N	N	..	..	..	44.1	5,200	9-1-55	Dr; L
2	5abbb	5,000	2,470	Derby School District	1949	510R	6 to 4	Kdmc	S, E	Sch	50R	122	49	96	5,168	7- -49	Dr; DL; Dr; P4164-504; U(1960)
2	5abcd	4,020	2,250	South Adams County Water and Sanitation District	1953	800R	10 to 8	Kdmc, Kdlc	T, E	PS	200R	..	..	270.6	5,167	11-28-56	DL; Dr; EL; FD; P4315-350, 380-410, 570-630, 670-675, 760-800; WS
1	5abcd2	4,000	2,280	.. do ..	1955	61R	48	Ql	T, E	PS	400R	..	..	45	5,165	6-25-55	B61; D; PD; GE; L; P448-61; WS
2	5abcd3	4,100	2,300	.. do ..	1953	1,525R	8 to 6	Klb, Klb, Kfm	S, E	PS, E	F10R	..	..	46	5,167.3	4-5-53	Dr; EL; L; P41,280-1,380, 1,458-1,482, 1,510-1,525. Bailed 70 gpm with 230 feet drawdown
2	5bcb	3,100	5,200	A. Seimer	1955	420R	6 to 4	Kdmc	..	D	B12R	30	6	195	5,147	4-19-55	DL; Dr; Tch365-485
1	5adada	70	280	South Adams County Water and Sanitation District	1955	80R	48	Ql	T, E	PS	500M	..	..	54	5,191	6-23-55	B80; Dr; GE; L; P467-80
2	5adada2	70	300	.. do ..	1953	800R	10 to 8	Kdmc, Kdlc	T, E	PS	174M	157	18	184	5,189.0	5-18-53	B82; Dr; EL; SL; Tch320-345, 415-450, 630-650; 670-790
1	6abcb	4,330	2,550	D. Reams	..	25R	48 to 24	Qb, Ql	C, E	Irr	100R	8	2	12	5,135	6-17-56	AS; D; DL
1	6bbcc	4,070	5,050	C. Jeffers	1956	40R	12 to 6	Qpa, Qb, Ql	J, E	D	B2R	..	..	14	5,129	10-7-56	DL; Dr; P427-40
1	6ccdb	600	4,600	South Adams County Water and Sanitation District	1955	45R	48	Qpa, Qb, Ql	T, E	PS	500M	7.4	24	30.2	5,147	9-22-60	D; DL; P422-35; ML(6-55)28
1	6ccdc	220	4,480	.. do ..	1956	44R	48	Qpa, Qb, Ql	T, E	PS	500M	7	4	30	5,144	6-29-56	B44; D; DL; GE; P434-44
2	6ccdc2	250	4,480	.. do ..	1955	754R	8	Kdmc, Kdlc	T, E	PS	103M	..	..	220	5,147	10- -55	AT; DL; Dr

Table 2.--Records of selected wells and springs--Continued

Plate number	Location	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land surface (in feet measured above m.s.l.)	Date of measurement	Remarks
2	C3-67-6cdab	1,070	Denver Flour Mills	1937	550R	..	Kdmc	T.E	B, Ind, Fire, Pr.	50R	..	..	5,145	4-10-58	DL; Dr; GE; PE10-16
1	6ddac	900	H. Wilson.	1957	16.0	6	Qb, Q1	C.E	Irr, L	10R	6	11	5,151	6-20-49	B36; DL; Dr; PE12-17
1	7aadd	4,200	100 Mile High Kennel Club	1949	37R	18	Qes, Q1	T.E	Irr	1,300M	22	..	5,165	6-23-49	Dr; L
2	7abce	4,500	.. do ..	1949	705R	8 to 6	Kdmc, Kd1c	T.E	D	15	24	12	5,153	1959	B20; D; Dr; L; PE8-20; WS
1	7acae	3,920	Town and Country Mutual Water Co.	1959	22R	48	Qp, Q1	T.E	PS	265R	..	..	5,158	1956	O; Dr
1	7acda	2,980	Commerce Town.	1956	32R	80	Qp, Q1	T.E	Irr, Sw	185R	..	..	5,164	9-21-60	D
1	7add	2,700	Town and Country Mutual Water Co.	1947	43R	48	Qes, Q1	T.E	PS	300R	..	..	5,169	4-10-62	DO; WL(11-6-57)21.2
1	7abab	2,480	790 Lundgren	1910	31.5	48 to 6	Qes, Q1	Cyl, E	S	..	..	22.0	5,169.6	7-59	B50; Dr; L; PE44-50; U(1960)
1	8bbab	5,200	4,380 A. Thompson.	1959	50R	5	Q1	J.E	D	10R	..	..	5,169	4-10-62	B47; DL; Dr; WL(7-10-56)20.3
1	8bbbd	4,900	4,880 W. Goltl	1955	60R	5	Q1	J.E	Irr, L	..	..	..	5,160	9-10-52	DL; Dr; PE422-463, 587-690
2	8dbbb	3,800	3,750 Kearney Junior High School	1952	690R	8 to 6	Kdmc, Kd1c	S.E	Sch	B20R	154	..	5,175	7-10-56	DL; Dr. Deepened. Yield 10 gpm at 607 feet
2	8cccc	100	5,100 C. Conter.	1950	870R	6 to 4	Kdmc, Kd1c	S.E	D	..	..	..	5,185	11-6-57	Dr; WL(9-11-55)165.6
1	9baab	5,180	3,190 Rocky Mountain Arsenal.	1958	72.0	5	Qv	N	N	..	..	..	5,200.1	3-12-58	B61.1; Core; Sc55 0-61.6; SL
1	9bbcd	4,100	4,800 .. do ..	1958	64.0	4	Qv	N	O	10R	8.4	..	5,194.0	11-6-57	Dr; WL(9-11-55)56.8
1	9cbca	1,910	4,920 .. do ..	1958	60.3	6	Qv	N	O	..	..	..	5,210.3	3-10-58	B70.4; Core; L; Sc55 4-63.3; 64.7-70.6
1	9ccad	950	4,180 .. do ..	1958	75.0	4	Qv	N	O	16R	..	..	5,212.3	8-30-55	Dr; WS
2	10abba	5,030	2,060 .. do ..	1957	580R	5	Kdmc	N	O	..	..	..	5,220	11-5-57	B56.3; Core; L; Sc31.3-31.4, 34.6-39.3, 55.2-57.3
1	10addc	2,800	550 .. do ..	1957	62.2	4	Qes, Qv	M	O	5R	25	..	5,241	11-4-57	B81.3; Core; L; Sc30.9-32.9, 51.3-57.8, 60.2-62.4, 74.9-77.0
1	11odda	400	80 .. do ..	1957	85.5	4	Qes, Qv	N	O	20R	5.5	..	5,279	9-9-55	Dr; WSP
1	12bbab	4,980	4,380 .. do ..	1957	23.0	42	Qp, Qv	N	N	..	..	..	5,248	9-30-57	B53.9; Core; L; Sc18.6-27.7, 29.1-37.8, 39.2-48.2, 49.6-53.2
1	12dcda	450	1,400 .. do ..	1957	60.0	4	Qes, Qv	N	O	20R	..	..	5,283	..	Dr; WS
1	13bbbb	5,050	5,150 F. Bostic.	1952	75R	6	Qes, Qv	..	D	..	..	..	5,280	11-6-57	A100; B45; Dr; L; WL(12-1-55)26.3; WS
1	14acae	3,730	1,350 B. Bollers	1952	51R	18	Qp, Qes, Qb, Q1	T.E	Irr	450R	21	..	5,270.5	8-10-56	B32; Dr; L; PE430-730
2	17abba	5,170	2,050 South Adams County Water and Sanitation District	1956	730R	32 to 16	Kdmc, Kd1c	T.E	PS	550R	290	32	5,204	7-16-56	DL; Dr
1	17abbc	4,700	2,350 D. Chaffin	1953	58.8	6	Q1	J.E	D	..	..	..	5,205	9-5-54	DL; Dr; PE60-72
1	17adaa	3,750	1,200 R. Vivens	1954	72R	5	Q1	J.E	D	18R	2	2	5,221	7-13-56	B52; Dr; L; WL(9-54)11
1	17bdab	3,650	3,000 L. Barbere	1954	50.5	5	Q1	J.E	D	..	..	..	5,210	4-10-62	A4(1959); D
1	17cdab	1,050	3,100 Blanding Investment Co.	..	38.5	36	Qpp, Qb, Q1	T.E	Irr, Cons	500E	..	..	5,207	10-23-56	D
1	17ddba	1,300	950 Mack Sand Co.	..	16.0	48	Opp	N	Qt	..	..	..	5,212	7-10-56	DL; Dr. Adjacent 645-foot well flowed in 1947
1	18abba	5,000	2,180 Colo. Interstate Gas Co.	1948	38R	8	Q1	..	Irr	90R	1.5	3/4	5,175	3-17-58	AT; B28; DD; DL; GE; T61
1	18abcc	4,150	2,400 Jones Sand and Gravel Co.	1956	28R	12	Opp, Qb, Q1	T.E	Ind	27M	13.9	24	5,173	..	..

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	MD distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
<b>C3-47-</b>															
1	18abed	4,100	2,220 Jones Sand and Gravel Co.	1950	31.5	12	Opp, Ob, Ql	M	Or	..	..	7.1	5,176	4-10-62	DL, GE
1	18acac	3,440	1,750 H. and H. Nelson	1937	38.0	30 to 10	Ob, Ql	J, E	S, Irr, L	..	..	16.2	5,180	2-19-58	DO
2	18acac	3,180	1,600 .. do ..	1956	600R	8 to 3	Kdmc	M	Or	..	..	311.5	5,180	8-11-59	Dr
2	18acac2	3,440	1,600 .. do ..	1956	670R	8 to 4	Kdmc, Kdic	S, E	B, D, Ind.	..	..	..	..	..	..
2	18dedd	2,900	3,600 Oriental Refining Co.	1961	916R	8 to 6	Kdmc, Kdic	S, E	B, Ind	30M	370	300	5,180	4-18-56	B54; Dr; FD; L; WS
1	18bdad	3,150	2,700 .. do ..	1955	42R	18	Ob, Ql	T, E	Ind, C	600R	21	2	5,180	11-15-61	AT; DL; Dr; GRU; Gun 652-662, 676-704, 728-736; HIO-8; NL; OH(750-916); QM; Sa
2	18bdad2	3,180	2,900 .. do ..	1947	45R	..	Ob, Ql	T, E	Ind, C	250R	..	..	5,185	9-2-55	B37; Dr; L; P127-42
2	18bdac	2,720	3,220 .. do ..	1940	726R	6	Kdmc, Kdic	S, E	Ind, B, C	45R	..	300	5,221	12-57	Dr; P110-317, 368-386, 426-438; OH(685-710); WS. Yield 85 gpm 1940; 60 gpm 1962; 45 gpm 1962
1	19cdad	1,160	2,920 Park Hill Golf Club	1957	80R	..	Ob, Ql	T, E	Irr	150M	..	37.0	5,260.0	4-23-62	B90; Dr; GE; WL(4-29-58)
1	19cdad	800	2,700 .. do ..	1957	95R	18	Ob, Ql	T, E	Irr	850M	..	40.9	5,265.7	7-9-57	B92; Dr; FD; GE; L; P155-85; Su
1	19dhaa	2,500	1,500 J. Canton	1959	82R	6	Ob, Ql	S, E	D	20R	34	..	5,258	7-30-59	B60; DL; Dr; GE; P138-80; WL(10-25-60)
1	23cbcb	1,900	5,080 Miller Enterprises	..	30.8	36	Oss	Cyl, M	S, Or	6M	.3By 1/6	21.6	5,279.0	4-15-62	D
2	24bdad	3,200	2,700 Mid-Colo. Oil	..	3,790R	..	..	..	Oil	..	..	..	5,330	..	Dr, L
2	29caaa	2,450	2,750 E. Hildebrand and A. Austin	1956	95R	6	Ql	S, E	Irr, L	35R	0	10	49.5	4-25-62	B80; Dr; FD; L; P110-95; WL(5-5-58)62.5; WSp
1	34dbba	2,500	2,200 T. Murphy	1956	77.9	6 to 5	Ob, Ql	M	N	B10R	42	3	5,324	7-17-56	B54; Dr; L; P110-80
1	34dbba	2,200	2,200 .. do ..	1956	78.0	6 to 5	Ob, Ql	M	N	B10R	35	4	5,323	7-17-56	DL; Dr; P112-80
2	35adde	3,290	100 Aurora Public Schools	1959	1,100R	6 to 4	Kdmc, Kdic	S, E	Irr	40R	55	..	5,363	1-19-59	A10; B18; Dr; EL; L; TCH25-833; 880-944; 1,012-1,059
2	36acdb	3,000	1,850 Fitzsimons Hospital	1919	927R	12 to 5	Kdmc	A	B, Ind	26M	96.8	18	5,370	7-6-57	AT; B40; Dr; FD; L; WS
2	18aad	4,850	160 B. Fernald	1956	525R	6 to 4	Kdmc	..	D	B25R	90	2	5,103	1-12-57	B13; Dr; L; P1360-380, 460-525
1	18bdd	4,040	1,400 .. do ..	1941	34R	48	Opp, Ql	T, E	Irr	1,200M	6.1	1/4	5,104.0	4-10-62	A30; Dr; WL(8-21-56)6.7
1	18bbcb	4,890	5,230 T. Fukui	..	17.3	36	Opp, Ql	C, E	Irr	..	..	7.1	5,110.8	8-7-56	B17.5; D; Su
1	18add	1,760	420 A. Brink	1929	35.7	..	Ql	T, E	Irr	400M	4.1	1/4	5,138.6	8-21-56	A10; B23; D; GE; WL(8-16-56)28.9
1	18add	1,360	30 C. Juhl	1930	38.0	24	Ql	T, E	Irr	..	..	22.4	5,139.0	4-10-62	..
1	18dcb	1,920	2,370 C. Miller	1944	32R	36	Ql	T, E	Irr	620M	12.0	1/6	5,107.0	..	..
1	18caa	1,000	1,400 C. Juhl	..	20.1	72	Opp, Ob, Ql	T, E	Irr	250M	4.9	1/6	5,125.1	8-16-56	A53; Dr; P110; Su
1	18cdc	40	1,980 A. Pompey	1924	13.2	72 x 72	Opp, Ql	C, E	Irr	100E	..	..	5,135	9-28-59	Al; B14; D
1	18cdc	20	1,400 P. Tito	1940	14R	48	Opp	T, E	Irr	..	..	..	5,130	..	..
1	18dce	30	1,000 H. Krough	..	34R	36	Opp, Opp, Ql	..	S	..	..	..	5,142	..	..
1	18ded	30	700 .. do ..	1934	38R	48	Opp, Ql	C, E	S	..	..	..	5,140	..	..
1	18ded2	20	700 .. do ..	..	39.8	48	Opp, Ql	T, E	Irr	600R	..	..	5,143.4	1-5-57	A35; Dr; WL(8-21-56)31.2
1	28acc	2,670	2,610 L. Flicco	..	48R	48	Opp, Ql	M	Irr	..	..	..	5,160.8	11-6-57	D
1	28abb	5,230	3,930 J. DeCarlo	1952	37.0	18	Opp, Ql	T, E	Irr	175M	12.3	1/4	5,140	8-6-56	A9; DL; P125; Su
1	28bab	4,940	4,620 E. Marrone	1954	36.4	18	Opp, Ob, Ql	T, E	Irr	..	..	..	5,144.7	4-10-62	A10; Dr; P118-21; Su; WL(8-6-56)15.0
1	28bbc	4,850	5,000 A. Gaccetta	1955	26.8	16	Opp, Ob, Ql	C, E	Irr	..	..	..	5,142	8-6-56	Al; D; Su
1	28bca	4,580	4,730 J. Gaccetta	1953	38R	18	Opp, Ob, Ql	..	Irr	..	..	..	5,131.8	..	..
1	28bcd	4,510	5,230 D. Albenaz	1925	33R	..	..	..	Irr	..	..	..	5,139.5	..	..
1	38aca	4,610	760 T. Giuliano	..	21.0	38 to 18	Opp, Ob, Ql	C, G	Irr	..	..	..	5,145	4-10-62	Dr; U(1956); WL(8-10-56) 5.8
1	38acb	4,520	1,300 F. Serratore	1952	33.4	18	Opp, Ob, Ql	T, G	Irr	..	..	..	5,148	8-10-56	D; Su

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
2	CJ-68-3bccc	2,730	5,040 Baker Metropolitan Water and Sanitation District.	1959	610R	9	Kdic	T,E	PS	151M	..	200	5,180	9-9-59	B19; Dr; EL; L; Tch310-610
1	3cadc	1,400	3,180 D. Padotto	1956	33R	18	Op,Ob	T,E	Irr	..	..	13.7	5,155	5-6-58	Dr
1	3cadd	1,400	2,800 .. do	1956	33R	6	Opp,Ob,Ol	T,E	D,IrrL	30R	10	2	5,155	11-10-58	DL; Dr
1	3cdcc	1,300	3,550 P. Filippone	1958	32R	24	Opp,Ob,Ol	T,E	Irr	..	..	1	5,165	1938	A6; B3; Dr
1	3cdcc	250	3,150 .. do	1956	33R	6	Opp,Ob,Ol	T,E	D	20R	14	..	5,165	1-25-58	B33; Dr; L
1	3bccc	1,380	2,630 D. Padotto	..	30R	20 to 6	Ob,Ol	J,E	Irr	20R	..	18	5,155	1-27-58	B33; DL; Dr
1	3bdc	1,400	1,950 .. do	..	32R	18	Ob,Ol	C,G	IrrL	..	..	11.6	5,155	4-10-62	B28; DL; Dr; WL(5-6-58)18.4
1	3dcca	350	900 Mapleton School	1954	615R	8 to 6	Kdl	..	Sch	35R	..	..	5,180	..	DL; Dr; P4512-615
1	4acbb	3,320	H. Kelenovic	..	52R	48	Ob,Ol	T,E	Irr	50M	2.0	24	5,244.1	9-8-59	AT; D; U(1959)
1	4acbd	3,520	D. Gomez	1958	60R	6 to 5	Qy,Ol	Cyl,E	D	30R	2	..	5,239	5-15-58	B70; DL; Dr; P442-60
1	4acdb	3,000	V. Sadowski	1957	70R	6 to 4	Qy,Ol	J,E	D	15R	..	..	5,232.6	12-1-58	B55; DL; Dr; P40-70
1	4bccc	2,750	5,230 P. Davis	1956	44.0	8	Cy,Ol	S,E	D	30R	..	..	5,246.0	4-10-62	B30; Dr; L; P418-28; WL(5-56)15;
1	4bdca	3,050	2,750 R. Abbott	1959	48R	24	Qy,Ol	S,E	E,Irr	90R	3	..	5,239.3	9-8-59	WL(12-1-58)31.4
1	4cdca	350	3,600 F. Nordon	1959	25R	6	Ob,Ol	J,E	IrrL	30R	2	..	5,187.5	3-30-59	A10; B48; D; DL; P436-48
2	4dcbb	950	2,560 Fairview Construction	..	10.7	48	Ob	..	PS	147M	6.7	48	5,180	4-22-55	B18; DL; Dr; P410-21
2	5addd	2,700	50 Sunstrand Aviation	1956	1,513R	8 to 6	Kld,Kla	..	..	..	..	..	..	..	AT; B5
1	5ccbb	1,220	5,150 J. Garrañates	1957	50R	6	Qe	T,E	Ind	165R	..	..	5,245	10-26-60	DL; Dr; EL; WL(1955)15
2	5dcaa	2,580	50 Sundstrand Aviation	1959	640R	9	Kdic	S,E	Ind	B66R	22	..	5,245	10-26-60	B49; Dr; L; P427-50; WL(2-57)20;
2	5dcab	1,060	1,700 F. Stephens	1956	125R	6 to 4	Tkdu	S,E	D,IrrL	15R	..	..	5,254	12-9-58	WL(12-1-58)33.3
2	5dadd	150	230 Baker Metropolitan Water and Sanitation District.	1950	601R	9	Kdic,Kdic	T,E	PS	160M	..	..	5,198	7-8-58	B43; Dr; EL; L; Tch340-640;
2	6cadd	1,350	2,940 City of Arvada	1959	614R	9	Kdic	T,E	PS	91M	..	..	5,303	10-6-60	WL(8-59)345
2	6dcbb	600	2,550 J. Luttrell	1957	105R	6 to 5	Kdic	J,E	D	30R	54	1	5,297.9	11-7-58	B35; Dr; L
1	7abaa	5,180	1,450 O. Cain	1957	33R	6	Qy,Ol	J,E	D,IrrL	10R	5	1	5,212.0	11-7-58	Tch300-600; WS
2	7cabb	2,480	3,880 City of Arvada	1956	616R	9	Kdic	T,E	PS	154M	..	..	5,271	10-6-60	B17; Dr; EL; L; Tch340-600
1	7cbdc	1,550	4,300 Animal Foods Co.	1957	27.5	8	Opp,Ob,Ol	N	Ind	58M	3.3	1-1/2	5,233.6	11-10-58	B30; Dr; L; P430-75
2	7dcbb	550	2,600 P. Kiklaa	..	250R	4	Kdic	N	Ot	..	..	..	5,238	4-10-62	B30; DL; Dr; P421-33;
1	7dccb2	450	2,550 .. do	1956	20.2	6	Opp,Ob,Ol	..	D,Ot	..	..	..	5,236.2	4-10-62	WL(3-57)20
1	8dccb	1,009	2,500 Whitten	..	25.2	8	Opp,Ob,Ol	N	N	28M	15.7	1-1/2	5,210	4-10-62	B14; Dr; EL; L; Tch310-557;
2	9bada	4,600	2,900 Gordon Construction Co.	..	284R	4	Kdic	..	D	60R	..	..	5,184	..	WL(6-13-58)25;
1	9caaa	2,350	2,950 Vibrated Concrete Co.	1959	60R	48	Ob,Ol	..	Ind	60R	..	..	5,223	..	AT; DL; Dr; P413-28;
1	9cad	1,580	2,980 .. do	1956	20R	48	Ob,Ol	..	Ind	60R	10	3	5,228	1-4-56	U(1958); WL(6-57)6
2	9cadd	1,620	2,900 .. do	1952	280R	6	Kdic	Cyl,E	Ind	60R	..	..	5,228	..	Dr
2	9cadd2	1,320	2,800 Brickrete Inc.	1958	708R	6	Kdic,Kdic	S,E	B,Ind	820R	151	..	5,232	5-28-58	B12; Dr; GRL; L; Tch150-708
1	9cbla	2,500	2,630 J. Diemer	1957	31R	48	Ob,Ol	..	Irr	300R	..	..	5,199.3	3-5-57	B31; DL; Dr; P418-31
1	9dcbb	2,530	2,530 Smaidone Sheet Metal Works	1957	40R	5	Ol	J,E	Ind	B15R	26	4	5,239.2	4-10-62	DL; Dr; Sct21-27;
															WL(2-57)14;
															WL(11-14-58)11.6

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks	
2	CJ-98-10acc	2,950	2,420	Lumber Dealers Inc.	1956	715R	8 to 7 Kdmc, Kdmc	S, E	D, B, Fire	775R	..	..	5,200	7- -56	EL; FO; WS. Flowed after lower conglomerate was capped	
2	10ccdb	600	4,550	Koppers.	1928	603R	12 to 6 Kdmc, Kdmc	S, E	N	125R	..	..	5,220	10-26-60	B16; L; U(1948-60)	
2	10ccdc	300	4,550	do.	1948	600R	8 Kdmc, Kdmc	T, E	Ind, B	30R	10	4	5,225	10-10-59	DL; Dr; Pfl12-25	
1	10ccdc	200	3,800	S. Lucy.	1958	25R	6 Qes, Q1	J, E	D	30R	10	..	5,221	10-10-59	DL; Dr; Pfl12-25	
2	10ddac	1,420	400	Broderick Wood Products	1959	765R	8 to 6 Kdmc, K1	S, E	Ind	60R	..	..	5,220	10-29-60	B18; Dr; L; Pfl480-610, 655-677, 721-743	
2	11aacd	4,100	920	Public Service Co. of Colo.	1958	630R	10 Kdmc, Kdmc	T, E	Ind	150R	102	27	422.9	4-10-62	DL; Dr; EL; Sc265-285, 440-620; WL(2-58)315, WL(8-59)38.5; WS	
1	11aad	4,290	210	do.	1955	29R	26 Ob, Q1	T, E	Ind, E	600R	..	..	9.4	4-10-62	B10; DL; Dr	
2	11adca	3,180	1,440	do.	1955	933R	10 Kdmc, Kdmc	T, E	Ind	120M	87	48	248.2	12-15-60	AT; B74; Dr; EL; L; Sc74-94, 122-172, 196-266, 380-580; WL(6-12-55)269.0	
1	11adbb	3,780	1,240	do.	1947	109R	5 Ob, Q1	S, E	D	3R	..	..	5,130.5	..	DL; Dr	
2	11adba	3,290	320	do.	1945	285R	5 Kdmc	S, E	Ind	13R	..	..	5,121.0	..	Dr	
1	11adba2	3,290	220	do.	1955	30.0	26 Q1	T, E	E, Ind	700M	12	48	9.4	4-10-62	AT; B10; DL; Dr; Pfl15-30; WL(6-6-55)6.9	
2	11bcdb	3,100	5,000	Thompson Pipe and Steel Co.	1958	804R	8 to 6 Kdmc	S, E	D	150R	362	8	255	3-27-58	B12; Dr; EL; L; Pfl450-620, 710-800	
2	11cdhb	1,180	3,650	Daffin Corp.	1957	505R	6 to 4 Kdmc, Kdmc	S, E	D	20R	..	..	285	3-7-57	DL; Dr; Pfl300-320, 460-505	
1	11cdcd	200	3,600	F. Trujillo.	1958	30R	6 Ob, Q1	J, E	D	25R	4	..	12	5-135	9-3-59	B28; DL; Dr; Pfl25-30
1	11dadc	1,980	3,390	Public Service Co. of Colo.	1955	29R	26 Ob, Q1	T, E	E, Ind	..	..	..	5,121.7	..	B29; DL; Dr	
1	11dada	1,950	200	F. Miller.	1957	29R	48 Ob, Q1	C, Tr	Irr, S	..	..	..	5,125	5-19-57	DL; Dr; Pfl6	
2	11dbba	2,500	2,280	Public Service Co. of Colo.	1959	681R	10 Kdmc	T, E	Ind	140R	130	..	375	3-24-59	DL; Dr; Sc481-681	
2	11ddab	1,250	450	National Food Stores	1950	640R	8 to 5 Kdmc	T, E	Ind	50R	36	..	315	6-11-57	DL; Dr; FO; Pfl416-620. Destroyed in 1960	
2	11ddab2	1,050	480	do.	..	..	..	Kdmc	T, E	Ind	35R	..	315	6-11-57	Dr; CW. Destroyed in 1960	
2	11ddab3	1,150	350	do.	1957	580R	10 Tkdu, Kdmc Kdmc	T, E	Ind	152R	137	8	311	2-27-57	DL; Dr; GE; Pfl312-580; WS	
1	11ddab4	1,080	350	do.	1959	38R	21 Qpp, Q1	T, E	Ind	125R	..	..	5,122	..	B34; DL; Dr; GE; Pfl10-38	
1	11ddbd	680	680	Capitol Rendering Co.	1946	20R	48 Qpp, Q1	C, E	Ind	30R	..	..	5,128.2	10-27-60	B32; D	
1	11ddca	580	750	do.	1946	32R	48 Qpp, Q1	T, E	Ind	100R	..	..	18.0P	11- -59	ALL-5; D; WL(5-58)10	
1	11ddcb	600	1,300	Miller Bros.	1936	31R	48 Qpp, Q1	C, G	S, Dy, Irr	..	..	..	5,118.9	12-20-60	DL; Dr; GE; Tchl115-134, 239-309, 385-422, 457-495, 519-560; WL(10-57)312	
2	11ddcb	600	650	Capitol Rendering Co.	1957	590R	8 Kdmc, Kdmc	S, E	B, Ind	168R	112	24	410.0	..	..	
1	12aaca	4,580	990	L. Jorgensen	1945	43R	48 Qpa, Ob, Q1	T, E	Irr	80M	10.9Ry	1/4	17.4	4-10-62	AJ; D; Pfl12	
1	12adba	4,300	650	A. Krough.	..	40R	48 Qpa, Ob, Q1	T, E	Irr	..	..	..	5,139.7	..	A15; D	
1	12adba	5,250	1,480	C. Jorgensen	1948	20R	12 Qpp, Ob	C, E	D, S	..	..	..	5,133	..	Dr	
1	12adba2	4,980	1,520	do.	1951	17R	12 Qpp, Ob	C, E	S	..	..	..	5,140	..	..	
1	12adca	3,020	1,550	Continental Oil Co.	1951	42R	60 Ob, Q1	T, E	Ind	300R	..	..	16.0	10-25-60	D	
1	12adba	3,950	750	C. Power	1956	27R	48 Ob, Q1	C, E	S	250E	..	..	20	6-12-56	B27; D; DL; Pfl17-27	
1	12bacd	4,020	3,620	G. Amato	1940	36.5	48 Ob, Q1	T, E	Irr, Pr	..	..	..	16.7	10- -59	D	
1	12bbab	5,150	5,240	Public Service Co. of Colo.	1955	31R	26 Qpp, Ob, Q1	T, E	Ind, E, Fire	500M	7.5	120	11	5,117.0	10- -55	AT; Dr

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
CJ-68-															
1	12cbb	3,000	Litvak Packing Co.	1959	804R	8	Kdmc, Kalc	T, E	Ind, Pr	150R	270	248.2	5,134	11-14-60	Dr; EL; P231-321, 472-672; WS
1	12bdab	3,950	G. Anato	1950	26.2	48	Ob, Ql	T, E	Irr	250R	..	17.4	5,125	4-10-62	A4; WL(10-5-60)17.0
1	12bdad	3,350	A. Elliot	1950	15.5	48	Qpp, Ql	T, E	Irr, D	250R	..	5.0	5,129	10-5-59	A1; D
1	12bdad	3,620	do	1949	25R	48	Ob, Ql	C, E	Irr, G, AC	250R	..	12.7	5,125	4-10-62	A3; B24; D; WL(10-5-59)10.5
1	12bdad	2,660	J. and J. Spano	1943	21.0	48	Ob, Ql	C, E	Irr	..	..	..	5,135	..	..
1	12cbab	2,500	Packaging Corp. of America	1957	32R	48	Qpp, Ql	T, E	Ind	925R	23	10.0	5,119	12-23-59	B32; D; DL; GE; H70; P213-32; WS
1	12cbac	2,200	do	1958	32.0	48	Qpp, Ql	T, E	Ind	565R	17	11	5,120	1-29-58	B34.5; D; GE; L; P19-34
2	12cbbc	2,180	Litvak Packing Co.	1958	592R	8	Kdmc, Kalc	T, E	D, Ind, B, Pr	150R	320	220	5,125	3-16-58	Dr; GE; H20-16; P2284-441, 447-507, 570-592; WS
2	12cbbc2	2,200	do	..	850R	..	Kdmc, Kalc, Kl	T, E	Ind	25R	350	22	5,135	1954	B33; DL; Dr; FD; OW; TCh569-600, 620-640, 660-680, 700-720, 740-780, 800-820; U(1960); WSP
1	12cbbc3	2,200	do	1945	32R	48	Qpp, Ql	C, E	Ind	100R	..	13.3	5,121.0	10-27-60	D; WS
1	12cbcb	1,880	Dorffler Horse Packing Co.	1943	14R	24	Qpp	C, E	Ind	..	..	..	5,123.3	..	..
1	12ccaa	1,200	Packaging Corp. of America	1954	32R	36	Ob, Ql	T, E	Ind	600R	..	..	5,136.2	..	..
1	12cccb	500	F. Rossi	1942	60R	48	Ob, Ql	T, E	Irr	..	..	..	5,132	..	..
1	12ccce	100	do	1959	30.0	48	Ob, Ql	T, E	Irr	..	..	10.3	5,135	4-10-62	Dr; WL(10-5-59)12.2
2	12cdba	1,250	Packaging Corp. of America	1952	975R	8 to 6	Kalc, Kl	T, E	Ind, Pr	100R	20	350	5,145	12-10-52	B30; Dr; L; P2570-750, 790-830; WS
1	12cdbb	1,200	do	1940	19.3	48	Ob, Ql	T, E	Ind, Pr	200R	..	9.6	5,134.7	10-13-60	D; WS
2	12cdbd	900	do	1947	870R	8 to 5	Kalc	S, E	Ind, B, D	100R	135	415	5,145	10-13-60	Dr; WS
1	12cdca	650	do	1945	20.5	48	Ob, Ql	T, E	Ind, Pr	1,100R	..	11.7	5,145	10-13-60	Dr; WS
1	12cdac	2,300	Bay Petroleum Co.	1951	40R	48	Ob, Ql	T, E	Fire	300R	..	22.1	5,159.1	10-13-60	Dr; WS
1	12dabc	2,120	Continental Oil Co.	1956	45R	48	Ob, Ql	T, E	Ind	500R	..	32	5,162.5	10-11-56	Dr; DL; P232-45
2	12dbad	2,000	Bay Petroleum Co.	1941	688	6 to 3	Kdmc, Kalc	S, E	Ind	20R	..	535	5,153	11- -62	Dr; GRU; WL(10-60)325; WL(1-29-57)332.2
2	12dadc	1,600	do	1951	800R	8	Kdmc, Kalc	T, E	Ind, C	80R	..	275	5,157	1951	DL; Dr; WS
1	12dada	1,750	Empire Petroleum Co.	1949	47R	18	Ob, Ql	T, E	Ind, C	1,200R	..	17.7	5,150	10-25-60	Dr; U(1960)
1	12dada2	1,980	do	1955	47R	..	Ob, Ql	T, E	Ind, C	475R	16	27	5,150	2-23-55	B44; DL; Dr; P215
1	12dadb	1,750	do	1956	47R	18	Ob, Ql	T, E	Ind, C, B	150R	14	2	5,150	4-11-56	B43; Dr; GE; L; Lo30-45
1	12dadd	1,600	do	1948	48R	18	Ob, Ql	T, E	Ind, C	1,200R	..	30	5,150	7-2-56	Dr; P215; WS
1	12dbad	2,220	Continental Oil Co.	1956	42R	60	Ob, Ql	T, E	Ind	500R	8	32	5,161.8	10-12-56	Dr; DL; P229-42
1	12dbbc	2,640	do	1956	31R	60	Ob	T, E	Ind	82R	..	9.8	5,140.4	10-25-60	D; P27
1	12dbcb	1,980	do	1956	23R	48	Ob	T, E	Ind	100R	..	18	5,144.1	7-26-56	D; DL; P216-23
2	12dbdb	1,980	do	1937	695R	8 to 6	Kdmc, Kalc	T, E	Ind, B	5R	..	365	5,159.6	10-25-60	Dr
2	12dcaa	1,050	Bay Petroleum Co.	1956	1,626R	8 to 6	Klb, Klc, Kfm	T, E	Ind	875R	110	..	5,158	5- -56	B44; Dr; EL; L; TCh450; WS
2	12dcab	1,000	do	1958	800R	8	Kdmc, Kalc	T, E	Ind	94R	..	..	5,160	2-11-58	DL; Dr; TCh476-739; WS
2	12dcba	1,050	Continental Oil Co.	1958	633R	..	Kdmc, Kalc	..	B, Ind, D, Irr	..	..	150	5,158	8-11-58	DL; Dr; TCh489-633
1	12dcdb	400	Bay Petroleum Co.	..	46R	24	Ob, Ql	T, E	Ind	130R	..	..	5,163	..	Dr; WS
1	13aaaa	5,230	J. Jacobson	..	27.5	48	Ob, Ql	C, E	S, C, Irr, L	12R	..	21.9	5,167.9	4-10-62	B28.5; WL(10-5-59)19.5
1	13aaba	4,980	P. Jacobson	..	14R	24	Ob, Ql	C, E	S, Irr, L	..	..	..	5,163.0	..	..
1	13abbb	4,980	Mountain States Mixed Feed Co.	1958	37R	8	Ob, Ql	T, E	S, B	10R	1	..	5,165	..	845; Dr; L; P233-47
1	13abcb	3,450	J. Shockley	1946	30.5	8	Ob, Ql	J, E	Irr	12R	..	26.9	5,175	8-24-56	..

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land surface (in feet above sea level)	Date of measurement	Remarks
	CJ-68-														
1	13adac	3,650	Denver Dairy Co.	1951	388	72 to 10	Qb, Q1	J, E	N	130R	..	15.2	5,174.0	10-5-59	D; U(1958)
1	13adac	3,520	J. Stone	..	40R	48 to 36	Qb, Q1	C, E	Irr	100R	..	..	5,170	10-5-59	D; U(1959)
1	13baaa	5,120	Mountain States	..	37R	9	Qb	J, E	B	35E	..	..	5,164.1	..	Dr
1	13bdad	2,700	Mixed Feed Co.	1951	31R	60 to 48	Qb, Q1	C, E	Irr, Ot	62M	1	24.3	5,171.2	4-10-62	A2; PD; MSP
1	13bdad	1,100	J. Perry	1936	31.8	48	Qb, Q1	C, E	Irr	..	..	26.4	5,171.7	8-24-56	A5; D; Destroyed in 1959
1	14abca	4,550	Denver Live Stock Feeding Co.	..	18R	48	Qb	C, E	B	..	..	13	5,134	6-28-59	D; WS
2	14abcb	3,500	United Fryer and Stillman	1958	616R	9	Kdmc, Kd1c	T, E	Ind	200R	..	416.0P	5,135	1-16-60	B33; Dr; EL; L; Tch256-616
1	14abcb2	3,400	.. do ..	1959	34R	48	Qb, Q1	T, E	Ind, C	750R	16	14	5,135	3-13-59	D; DL; P13-34
1	14abcb	3,200	.. do ..	1949	32R	48	Qb, Q1	T, E	Ind, C	..	..	19.7	5,141.2	1-16-60	D; U(1960)
2	14abcb	3,350	Riverside Cemetery	1885	525R	4	Kdmc, Kd1c	N	M	P350R	..	+81	5,155	1885	Dr. Stopped flowing in Dec. 1890
1	14baec	4,620	Denver Live Stock Feeding Co.	..	18R	48	Qb	C, E	B	..	..	13	5,135	9-15-59	D; WS
1	14bada	4,520	.. do ..	1956	16.8	48	Qb	C, E	S, D	300R	3	13.7	5,135	9-28-59	D; P12-22; WS
1	14bbda	4,125	P. Montour	1958	40R	6	Qb, Q1	C, E	D	30R	10	15	5,136	1-6-58	B38; DL; Dr; P420-32
2	14bbca	3,050	Balco Corp.	1946	700R	6 to 5	Kdmc, Kd1c	S, E	D, Ind	17R	..	500	5,138	6-59	Dr
1	14bbca2	3,000	.. do ..	1955	33R	16	Qb, Q1	T, E	Ind, C	200R	..	..	5,138	..	Dr
1	14bbcd	2,800	Western Paving and Construction Co.	1957	33R	48	Q1	T, E	Ind	150R	0	2	5,138	11-16-60	D; GE; L; P16-33; WL(2-57)14
1	14bdad	3,350	V. Talarico	1946	32R	48	Qb, Q1	C, E	Irr	455R	..	..	5,138	..	A12; B32; D; P40-32
1	14bdad	2,720	City and County of Denver	..	19.0	48	Qb, Q1	C, E	Irr	700R	..	11.3	5,139.8	10-6-59	A15; D; P40-19
1	14cbcl	1,600	Imperial Meat Co.	1957	26R	48	Qb, Q1	T, E	Ind, C	..	..	16.8	5,138	11-16-60	B26; D; DL; P11-26
1	14cbcd	4,700	J. Hoffman Packing Co.	..	31R	6	Qb, Q1	..	Ind, C	10R	..	..	5,137	..	D
1	14ccab	1,200	Capitol Packing Co.	1959	29R	48	Qb, Q1	N	Ind	175R	..	13.3	5,140	11-14-60	DL; P17-29
1	14ccba	1,250	.. do ..	1948	28R	48	Qb, Q1	T, E	Ind, C	250R	..	..	5,141.9	..	D
1	14ccba2	1,250	.. do ..	1956	32R	48	Qb, Q1	T, E	Ind, C	300R	..	14	5,140	6-30-56	DL; Dr; GE; P16-32
2	14ccba3	1,200	.. do ..	1958	616R	9	Kdmc, Kd1c	S, E	Ind	200R	..	397.5P	5,140	11-16-60	DL; Dr; EL; Tch294-616; WL(9-58)272. Pilot hole to 750 feet
1	14ccbc	880	Wilson Packing Co.	1947	21.0	48	Qb, Q1	C, E	Ind, C, B	200R	6	9.3	5,142.2	11-16-60	D; P16
1	14ccbc2	950	Plat Packing Co.	1951	24.5	48	Qb, Q1	C, E	Ind, C	80R	..	15.1	5,138.0	11-16-60	D
1	14ccbc3	700	Adams Packing Co.	1951	30.8	48	Qb, Q1	C, E	Ind	105R	..	22	5,142.2	11-16-60	D
2	14ccdd	300	Swift & Co.	1930	1,470R	20 to 10	K1B, K1a	T, E	Ind, B, Pr	150R	..	..	5,149	1930	DL; Dr; SL. Well flowed 30 gpm at 1,310 feet and 60 gpm at 1,470 feet in 1930
1	14ccdd2	30	.. do ..	..	36R	18	Qb, Q1	T, E	Ind, C	100R	..	..	5,149	..	Dr
1	14cdab	1,270	K. & B. Packing Co.	..	30.0	16	Qb, Q1	N	Ind, Ot	200R	..	11.5	5,147	1-4-62	Dr; GE; U(1960)
2	14cdba	1,000	.. do ..	1916	567	16 to 8	Kdmc, Kd1c	T, E	Ind, Ot	175R	..	510.0	5,146	1-4-62	Dr; U(1960)
1	14cdba2	1,100	.. do ..	..	28R	60	Qb, Q1	T, E	Ind	100R	..	..	5,145	..	B34; D; DL
2	14daba	2,370	Riverside Cemetery	1936	608R	6	Kdmc, Kd1c	Cyl, E	D, B, G	10R	..	252	5,159	4-1-53	Dr; P1300; WL(9-36)200
1	15cdcd	150	Yorker Mfg. Co.	1955	52R	7 to 5	Qb, Q1	J, E	Ind	..	..	11	5,145	3-1-55	Dr
1	15cdcd2	80	P. Christenson	1957	30R	6	Qb, Q1	N	Irr, L	..	..	17	5,145	4-20-57	DL; P10
2	16dcac	950	Bowman Biscuit Co.	1959	659R	10	Kd1c	T, E	Irr, Ind, C	100R	71	24	5,242.0	11-15-59	Dr; EL; GE; M20; L; P4668-653; WS
1	17acaa	1,950	D. Showalter	1960	15.6	54	Qa	N	Irr, L	2E	..	12.9	5,335	5-16-60	D
2	17acda	1,120	Sisters of St. Francis	1956	810R	8 to 6	Kdml, Kd1c	S, E	Inst, Irr, L	80R	..	360	5,355	9-25-56	B40; Dr; L; P4370-393, 540-3; S
2	17acdc	2,750	.. do ..	1956	820R	8 to 6	Kdml, Kd1c	S, E	Irr	80R	..	..	5,365	..	DL; Dr; P1800-400, 520-710



Table 2.--Records of selected wells and springs--Continued

Plate number	Location	Map distance north-west (feet)	Owner or user	Year completed	Depth well (feet)	Diameter casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
C3-68-17adba	2	3,700	C. McChesney	1957	750	8	TKdu	J.E	D	20R	2	1	5,341	12-2-58	B15; Dr; L; P#18-100; WL(2-57)28
17adcc	1	2,750	T. McMillan	1957	75R	6	Os,TKdu	J.E	D	15R	1	2	5,358.0	4-10-62	B35; Dr; L; P#27-75; WL(12-1-56)13.0
18abcc	1	4,200	F. Coppel	1958	12.2	15	Qp,Ob	C.E	D	.	.	.	5,240.9	12-2-58	Dr; U(1958)
22aba	1	5,120	M. Soroco	1955	27R	6	Ob,Ol	J.E	D,IrrL	.	.	.	5,150	Dr; P#14-27	
22abbb	1	5,150	E. Hamilton	1955	25.8	6	Ob,Ol	J.E	IrrL	.	.	.	5,144.8	4-10-62	Dr; P#14-27
23bbad	2	4,650	Swift & Co.	1945	1,538R	10	Kib,Kla,Kfm	T.E	Ind,B,Pr	100R	166	18	5,155	7-25-56	Dr; P#14-27; P#40-27; WL(8-16-56)12.4; WSP
23bbba	2	5,050	K. & B. Packing Co.	1936	650R	12 to 6	Kdmc,Kalc	E.E	Ind,B	65R	.	.	5,144	1-26-36	Dr; P#14-27; P#40-27; WL(8-16-56)12.4; WSP
23bbba2	1	5,020	do	1952	30R	24	Ob,Ol	T.E	Ind,C	300R	.	.	5,143.8	9-12-55	Dr; P#16-31
23bbbb	1	5,000	do	1955	31R	18	Ob,Ol	T.E	Ind	150R	.	.	5,144	9-12-55	Dr; P#16-31
23bbcd	1	4,980	Pepper Packing Co.	1955	30R	48	Ob,Ol	T.E	S	.	.	.	5,142	.	.
23bdac	1	3,700	City and County of Denver	1955	43.6	.	Ob,Ol	T.E	C,AC,Ob	.	.	.	5,179.0	4-10-62	Dr
23bdad	1	3,750	do	.	64R	.	Ob,Ol	T.E	C,AC	640R	.	.	5,179.0	9-17-57	Dr
23bdab	1	3,750	do	.	64R	.	Ob,Ol	T.E	C,AC	640R	.	.	5,165.5	4-10-62	Dr; WL(9-17-57)15.8
23bdad	1	3,450	do	.	64R	.	Ob,Ol	T.E	C,AC	640R	.	.	5,165.7	9-17-57	Dr; WL(9-17-57)15.8
23bdad	1	2,850	National Food Stores Inc.	1949	38R	36	Ob,Ol	T.E	C	150R	.	.	5,186.8	.	Dr
23caaa	1	2,450	Miller's Super Markets Inc.	1947	39R	36	Ob,Ol	T.E	C	225R	.	.	5,186.4	.	Dr
23caca	1	1,900	do	1957	68R	36	Ob,Ol	T.E	C	400R	.	.	5,188	.	Dr
23cbca	2	4,250	Pepsi-Cola Co.	1955	747R	10 to 8	Kdmc,Kalc	T.E	Ind,Pr	125R	265	150	5,183	1-5-55	Dr; P#170
23cbcb	1	850	Denver Flour Mills	1935	50R	12	Ob,Ol	T.E	Ind,Pr	60R	.	20	5,187	11-18-60	Dr
23cbcb	1	2,620	Miller's Super Markets Inc.	1950	43.0	36	Ob,Ol	T.E	C	150R	.	.	5,186.7	11-14-60	Dr
24bbdd	1	4,220	S. Trolano	1955	47R	47	Ob,Ol	T.E	IrrL	150R	.	30	5,189	4-20-55	Dr; L; P#25-47
27bcdb	2	3,050	Chicago Burlington & Quincy Railroad	1917	700R	.	Kdmc,Kalc	T.E	Ind	250R	.	400	5,170	6-16-57	Dr; PD
27cdad	2	1,440	Silver State Laundry	1907	771R	10 to 3	Kdmc,Kalc	T.E	Ind	120R	.	393	5,190	1956	Dr; PD; WSP
27cbba	2	2,600	Chicago Burlington & Quincy Railroad	.	700R	20	Kdmc,Kalc	T.E	Ind	160R	.	400	5,173	6-14-55	Dr; PD; WSP
27dcdd	2	1,450	Ideal Laundry	1976	800R	12 to 6	Kdmc,Kalc	T.E	Ind	100R	.	400	5,205	6-12-57	B52; Dr; L; P#115; T55; WL(1926)23; WL(8-55)345
27ddcb	2	550	do	1910	400R	.	Kdmc	Cyl,E	N	10R	.	.	5,203	.	Original depth 735 feet; saved in 1940
28dcba	1	1,000	C. Wright	1955	42.9	8	Ob,Ol	C.E	Sani	.	.	18.8	5,178.2	8-17-56	Dr
28dcbb	1	450	Denver Water Board	1955	45.0	6	Ob,Ol	T.G	TM	40M	7.1	18.5	5,182.1	1-15-55	AT; DL
31acaa	1	3,800	J. Garrazone	1957	58R	6 to 4	Os,TKdu	J.E	D,IrrL	5R	.	7.4	5,324.5	4-9-62	B40; Dr; L; P#40-58; WL(3-57)20; WL(12-3-58)7.4
33aad	1	3,970	Monarch Foods	1955	35R	24	Ob,Ol	T.E	Ind	100R	3	140	5,185	12-14-60	D
33adac	1	4,050	Oxford Hotel	.	31.0	12	Ob,Ol	C.E	AC	50R	.	21.5	5,188	4-20-62	Dr; WL(12-14-60)22.3
33addd	1	4,060	do	1940	35R	12 to 10	Ob,Ol	C.E	AC,C	40R	.	24.5	5,189	12-14-60	Dr
33adba	1	3,860	Monarch Foods	1955	40.0	36	Ob,Ol	T.E	C	.	.	21.0	5,185	12-14-60	Dr; U(1960)
33adbb	1	3,920	do	1955	36.0	24	Ob,Ol	T.E	Pr	75E	.	20.2	5,185	4-19-62	Dr; WL(12-14-60)20.8
33bcc	2	2,800	Colorado & Southern Railroad	1931	702R	10 to 8	Kdmc,Kalc	T.E	Ind	450R	.	500	5,185	6-19-57	B15; Dr; L
33caca	2	1,950	Denver Flour Mills	1883	387R	5	Kdmc	.	Ind,B	.	.	12	5,188	12-1890	Flowed in 1883; destroyed in 1952
33cadb	1	1,850	do	1953	40R	48	Ol	T.E	Ind,C	550R	.	15	5,189	1957	Dr; L
33cadb2	1	1,880	do	1952	730R	8 to 6	Kdmc,Kalc	T.E	Ind,B	25R	50	300	5,189	1-8-52	Dr; WS
33cadb3	1	1,700	do	1958	40R	30	Ol	T.E	Ind,B	600R	15	17.0	5,189	11-3-58	Dr; GE; P#20-40
33dcb	2	1,960	Tivoli Brewing Co.	1942	1,400R	8 to 6	Klu,Kib,Kla	T.E	B	40E	.	210	5,191	9-1883	Dr; WL(1889)+3; WL(1896)6; Destroyed in 1940
33dcb2	2	1,840	do	1883	354R	4	Kdmc	H	Ind	R50R	.	427	5,191	9-1883	Dr; WL(1889)+3; WL(1896)6; Destroyed in 1940
33dcb3	1	1,850	do	1900	22.2	96	Ol	C.E	Ind,C	100E	.	20.3	5,191	4-20-62	Dr; Re; WL(12-14-60)20.3

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift and power	Use of water	Drawdown (feet) (hours)	Depth of water (feet)	Altitude of land to surface (in feet) (above m.s.l.)	Date of measurement	Remarks
2	C1-68-34aaa	5,230	Deep Rock Water Co.	1935	801R	8 to 3	Kdmc, Kdlic	T, E	Com	50R	250	5,226	1935	DL, Dr; WS
2	34aaa2	5,280	do	1895	750R		Kdmc, Kdlic	N	M	31R		5,226		Dr; WS. Destroyed in 1935.
1	34bccd	2,860	Federal Reserve Bank of Kansas	1940	39.9	24	Qb, Ql	T, E	AC	150R	2	5,211	10-23-59	B39.9; Dr; P415.1-25.5; Rg
2	34bccd2	2,930	Tower Merchandise Mart	1884	669R	6	Kdmc, Kdlic	T, E	Ind, B	28R		5,210	11-17-60	Dr; WL(1884)+84; WL(1896)-50
1	34bccd3	2,960	Federal Reserve Bank of Kansas	1955	47R	24	Qb, Ql	T, E	AC, E	750R	10	5,212	4-19-62	B44; Dr; GE; H60; L; Lo32-47; WL(10-23-60) 26.5. Log from adjacent core hole
2	34bdca	3,100	New Customs House	1928	700R		Kdmc, Kdlic	N	N	60R		5,221		Flowed until 1929
2	34cbca	2,350	Albany Hotel	1885	720R	6	Kdmc, Kdlic	T, E	AC, D, B	250R	150	5,222	1904	Dr; OH(700-720); OW; WL(1885)+50; WL(1893) 90; WL(1899) 120
2	34cbca2	2,500	Tabor Bldg.	1883	390R	4	Kdmc	A	N	F50R		5,214	1883	Flowed 35 gpm in 1885, stopped flowing in 1887
2	34cbba2	2,500	do	1902	734R		Kdmc	Cyl, E	N		150	5,215	1902	Dr; WS. Used until July 1946
2	34cbcb	1,930	Public Service Co. of Colo.	1910	749	10 to 4	Kdmc, Kdlic	A	AC, D	38R		5,216	12-4-59	B38; Dr; L; WL(1910) 210; WL(1947) 315
2	34cbda	1,700	Denver Dry Goods Co.	1906	723R	8 to 4	Kdmc, Kdlic	A	N	100R		5,222	11-16-60	DL; Dr; P4380-723; U(1949-60); WL(1933) 285
1	34cdad	700	Webb and Knapp	1956	62.5	24	Qb, Ql	T, E	Dr	75R		5,234	8-28-56	B61; L; Dr
2	34cdad2	400	Petroleum Club	1955	1,615R	12 to 6	Klb, Klc, Kfm	N	M, Ot	155R	234	5,237	4-2-62	Dr; EL; L; P41,472-1,582
1	34cdad2	430	do	1955	73R	24	Qb, Ql	N	N, Ot			5,237	4-2-62	Dr; GE
1	34cdad2	1,350	Denver National Bank	1960	35R		Qb, Ql		TW	40R	16	5,250	9-30-60	Dr; U(1959-60); WL(1933) 297. Yielded 65 gpm when drilled
2	34cdcb	880	Shirley Savoy Hotel	1911	700R	4	Kdmc, Kdlic	A	D, B	40R		5,238	11-15-60	Dr; U(1959-60); WL(1933) 297. Yielded 65 gpm when drilled
2	35acbb	3,700	F. Harrie	1956	816R	8 to 6	Kdmc, Kdlic	N	D	B20R	10	5,270	10-20-56	B69; Dr; EL; L
2	35acdc	2,800	Presbyterian Hospital	1926	800R	12 to 5	Kdmc, Kdlic	S, E	Hosp	92R		5,285	5-31-57	Dr; FD; L; P4398-410, 532-544, 579-728; WSp
2	35bccc	2,700	Buehler Transfer Co.	1929	765R	10 to 4	Kdmc, Kdlic	N	N			5,257	1929	L; P4450-755. Plugged
2	35bccc2	2,700	do	1936	765R	6 to 5	Kdmc, Kdlic	N	N			5,250	1937	B48; DL; P4120. Plugged
2	C1-69-1aaa	5,025	Shoenberg Farms	1959	520R	9	Kdlic	S, E	D	B65R	47	5,331	2-2-59	DL; Dr; EL; Tch280-520; WL(6-61) 274. Pilot hole to 599 feet
2	1adbd	3,350	R. Westcott	1956	610R		Kdlic	Cyl, E D, S, IrrL	4R		264	5,304	11-28-56	Dr; EL
2	1dca	850	City of Arvada	1959	896R	9	Kdlic	T, E	PS	68M	156.0	5,418	10-6-60	Dr; EL; H16; L; Tch396-696; WL(2-19-59) 394
2	2bcd	3,440	J. Smith	1956	543R	6	Kdlic	T, E	Irr	75R		5,534	1956	Dr; U(1959-62)
2	2bdad	2,810	do	1956	1,100R	8	Klu, Klb	T, E	D, B			5,480		Dr; U(1959-62)
1	2bdad2	2,750	do	1954	21.5	36	Qb			7E		5,479	3-16-62	D
1	2bdad3	2,670	do	1954	28.0	60	Qb					5,480	3-16-62	D; U(1959-62)

Table 2.---Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift and power	Use of water	Yield (gpm)	Drawdown (feet)	Drainage (hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
2	2dab	1,230	City of Arvada	1960	676R	9	Kalc	T,E	P8	136M	203	..	553.0P	5,409	10-6-60	DL; Dr; Tch300-675; WL(6-28-60)150
2	2adb	1,220	.. do ..	1953	800R	8 to 6	Kalc, Klu	S,E	P8	60M	103	48	496.5	5,631	6-6-57	DL; Dr; EL; PD; P4375-180; 825-525, 545-655, 675-680, 745-765, 785-793; WL(7-53)300
2	2adb2	1,250	.. do ..	1955	1,740R	10 to 6	Klb, Klc, Kfm	S,E	P8	45R	550	..	330.9	5,631	1-24-57	DL; Dr; EL; PD; GRL; WL(9-55)100; WS; MSR
1	3bbb	5,200	R. Malara	1958	52R	6	Qs	J,E	D	30R	22	..	6.4	5,536.4	4-10-62	B20; Dr; Li; P210-52; WL(10-29-58)4.6
2	3cbdb	850	City of Arvada	1957	647R	6	Kdl	S,E	P8	69M	..	..	370	5,486	2-2-57	DL; Dr; EL; Tch296-647
1	4acbb	3,750	G. Johnson	1956	32R	6	Opp, Qb	J,E	D, G	40R	9	1	3	5,421.3	2-23-56	DL; Dr; EL; Tch296-647
2	5cbba	4,800	A. Buerger	1955	285R	6	Kdmc	S,E	D	15R	..	..	185.1	5,535	8-12-58	DL; Dr; PD
2	6cbab	2,550	E. Kistler	1935	1,220R	10 to 6	Klb, Klc, Kfm	S,E	D	50R	..	..	57	5,545	8-4-35	DL; Dr; Li; WS
2	6cbbc	2,200	G. Herring	1957	431	8 to 4	Kdmc, Kalc	S,E	..	810R	20	..	27.8	5,550	6-7-57	DL; Dr; EL; P288-431
2	7bad	4,870	E. Lewis	1957	95.6	6	Kdl	J,E	D, S	6R	51	..	24.0	5,565	8-25-58	B51; Dr; PD; Li; P234-95
2	7badd	2,900	Farmer's Highline Canal	..	9,446R	..	..	M	..	..	..	..	1.8	5,544	11-23-56	DL; Dr; EL; L
2	7cbdd	1,550	Car-O-Mor Heights	1957	497	..	Kdl	M	PS	..	..	..	149.1	5,595	11-21-60	DL; Dr; EL; U(1960)
2	7dbcb	1,690	C. Weber	1957	430R	6 to 4	Kdl	Cyl,E	D, IrrL	8R	22	2	265	5,575	2-26-57	DL; Dr; PD; P295-358
2	8bbbb	5,120	L. Newman	1955	260R	6	Kdl	J,E	D	8R	..	..	31	5,549	8-12-58	DL; Dr; PD; L
2	8caaa	2,430	P. Schiemann	1955	352R	6 to 4	Kdl	S,E	D, IrrL	30R	..	..	221.8	5,490	8-15-58	DL; Dr; PD; P2300-352
1	8cdcd	100	J. Price	..	26.5	24	Qp	T, G	Irr	100R	18	2	7.1	5,445.5	8-27-59	A3, 5; B22; Dr; Li; P29-21
2	8dbbb	2,380	T. Roberts	1954	350R	6 to 4	Kdl	S,E	D, IrrL	15R	70	4	32.4	5,485	8-12-58	DL; Dr; P2900-350
2	8dbdd	1,480	A. Streffe	1956	375R	6 to 4	Kdl	S,E	Dy,D, S, IrrL	18R	..	..	235	5,448	3-22-56	DL; Dr; P2900-365
1	8dcbb	1,100	H. Taylor	1958	80R	5	Qs, Kdl	J,E	D	30R	0	2	24	5,459.7	10-9-58	B24; Dr; Li; P222-80
1	10dab	1,750	W. Gaddes	1956	50R	6 to 5	Qs, Kdl	J,E	D	20R	24	1-1/2	17.4	5,552.4	4-9-62	B23; Dr; Li; P210-50; WL(11-14-58)17.1
1	10dbbc	2,030	City of Arvada	..	25R	96	Qpp	T,E	Irr	250R	..	..	15	5,340	12-15-60	A8; Dr; GE; GY300+
2	11bbad	4,830	.. do ..	1956	822R	8	Kdmc, Kalc	Klu	..	..	..	..	490.0P	5,442	10-6-60	Dr. Inclination survey
2	11bbcd	3,400	.. do ..	1956	484R	6	Kalc	S,E	PS	127M	..	..	362.0P	5,348	10-6-60	Dr; WL(10-60)282
1	11bca	2,030	K. Goetz	1956	25R	6	Opp	J,E	D, IrrL	5R	2	1	7.9	5,320	11-12-58	DL; Dr; Tch15-25
1	11ccaa	1,050	C. Roten	1956	32R	6	Qs, Kdmc	J,E	D, IrrL	40R	6	2	11.9	5,344.4	11-10-58	B12; DL; Dr; P220-32
1	11ccad	750	M. Skinner	1954	32R	6	Qs, Tkdu	J,E	D, IrrL	20R	3	..	16	5,344.9	4-5-58	B51; Dr; Li; P220-32
1	11cdba	1,200	M. Masters	1956	32R	6	Qs, Kdmc	M	D, IrrL	50R	4	2	15.7	5,338.9	4-9-62	B10; DL; Dr; P220-32; WL(12-22-58)14.4
2	11cddd	50	City of Arvada	1923	425R	8 to 6	Kalc	T,E	PS	66M	..	..	203	5,340	1933	Dr; WL(1947)204; WS
2	11ddad	760	.. do ..	1948	615R	6	Kalc	T,E	PS	204M	46	12	245	5,300	11-48	DL; Dr; EL; P210-355, 375-438, 484-525; WS
1	12dabb	2,440	M. Snee	1955	60R	6	Qs	J,E	IrrL	7R	..	..	12	5,394	1959	OW
2	12dbda	1,940	City of Arvada	1958	616R	9	Kalc	T,E	PS	200M	..	..	275	5,290	5-28-58	B28; Dr; EL; L; Tch275-616
1	12dcbb	1,150	J. Pachello	1956	11.0	..	Opp, Qb	Pch, H	D	..	..	..	7.2	5,274.4	11-29-57	Dr; P275-616
1	12dbcc	1,900	Shields and Pauley	1956	21R	6	Opp, Qb	J,E	D, Com	50R	6	2	6.3	5,265.8	10-21-58	B20; Dr; Li; P212-21
1	12abcc	4,100	R. Does	1957	22R	8	Opp, Qb, Ql	J,E	PS, IrrL	22R	13	2	4.4	5,267.2	11-3-58	B21; DL; Dr; P214-22
2	12adbc	2,580	Simmons and Brooks	1956	596	8 to 6	Kalc	S,E	PS	83R	45	..	308.0	5,265	11-8-59	B21; DL; Dr; P210-50; WL(11-14-58)17.1
2	12adcc	600	.. do ..	1958	577R	8	Kalc	T,E	PS	830R	12	..	309.8	5,268	11-8-59	DL; Dr; H9-7; Tch402-527
1	13babb	5,100	J. Joseph	..	20R	..	Opp, Qb, Ql	J,E	G	50R	12	..	4.3	5,274.4	9-8-59	DL; Dr
1	13bbcc	4,180	T. Jefferys	..	21R	6	Opp, Qb, Ql	J,E	IrrL	45R	6	1-1/2	6	5,285	4-21-56	B21; DL; Dr
2	13bdac	3,600	Sigman Meat Co.	..	..	..	Kdl	T,E	Ind, Pr, S	85R	..	..	..	5,272	..	Dr
2	13bdad	3,400	.. do ..	1958	655R	6	Kdl	S,E	Ind, Pr	85R	165	..	285	5,270	9-15-58	DL; Dr; P2390-635
2	13bdad	3,600	.. do ..	1960	..	..	Kdl	..	Ind, Pr	85R	..	..	..	5,280	..	Dr
1	13cbaa	2,500	S. Spano	..	7.4	24 to 12	Opp	..	D, Ot	..	..	..	5.3	5,283.0	4-9-62	D
2	13dbbb	2,430	City of Arvada	1955	645R	10 to 8	Kalc	T,E	PS	145M	65	..	270	5,275	2-25-59	Dr
1	14aad	4,200	A. Warner	1956	21R	8	Opp, Ql	J,E	IrrL, Ot	45R	6	2	5.2	5,284.8	4-9-62	B21; DL; Dr; P211-19
1	14abdb	4,320	E. Jones	1956	8.0	48	Opp	C, M	IrrL	12R	..	..	4.8	5,297.0	10-27-58	DL; Dr; P24-8

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks	
C3-69																
1	14cccb	3,150	A. Swanson	1958	18R	6	Qpp-Ql	J,E	D,Com	11R	10	6	5,304.6	3-31-58	Dr; L; P12-18	
1	14cccb2	2,470	A. Spallone	1958	34R	7	Qpp-Ql	J,E	D	30R	1	9.3	5,305	7-25-56	B29; DL; Dr; P17-27	
1	14cccc	2,700	M. Lee	1956	23R	6	Qpp-Ql	J,E	D,Com	20	1	2	5,305	7-25-56	B22; DL; Dr; GE; P14-23	
1	14baad	4,630	H. Warner	1956	21R	6	Qp-Ql	J,E	Ind	50R	6	2	5,301.8	10-22-58	B20; DL; Dr; P11-20; WL(6-56)4	
2	14baba	4,980	City of Arvada	1943	399R	5	Kdmc	PS	PS	PS	PS	255	5,340	3-6-54	Destroyed in 1960. Inadequate	
2	14baba2	5,000	do	1943	360R	6 to 5	Kdmc	T,E	PS	124M	PS	270	5,334	10-6-60	U(1960). Inadequate	
2	14baba4	4,950	do	1959	616	9	Kd1c, K1	T,E	PS	PS	PS	570.0P	5,331	10-6-60	B26; Dr; EL; L; TCh301-608; WL(5-29)250; WL(10-60)280	
1	14bbcb	4,480	R. Bailey	1957	22.6	36 to 18	Qs	J,E	G	15R	PS	14.0	5,353.5	10-24-58	B24; DO; DL; P17	
1	14bbcb	3,050	D. Tournay	1955	13.3	36	Qpp	C,E	Irr	20M	PS	11.9P	5,321.8	8-27-59	Al; D	
1	14bbcd	2,740	A. Burd	1956	28R	6	Qpp-Ql	J,E	D	10R	4	1	5.6	5,310.0	10-22-58	B28; DL; Dr; GE; P14-23
1	14ccab	2,550	T. Sovia	1956	20R	5	Qpp-Ql	J,E	D	50R	10	2	5,307.8	9-1-56	B19; DL; Dr; P12-19	
1	14ccdc	1,380	P. Terry	1956	21R	6	Qpp-Ql	J,E	D	30R	10	2	5,309.3	8-28-56	B18; DL; Dr; P12-21	
1	14ccdd	1,620	Standard Oil Co.	1958	22R	6	Qpp-Ql	J,E	D,Com	30R	7	5	5,309.0	7-10-58	B19; DL; Dr; P12-22	
1	14cbba	2,500	A. Peterson	1958	22R	6	Qpp-Ql	J,E	D	30R	7	6	5,319	4-15-58	B21; DL; Dr; P12-22	
1	14cbca	1,900	A. Stout	1957	19R	6	Qpp-Ql	J,E	D	12R	3	2	5,319.4	5-2-57	DL; Dr; P13-19	
1	14cbdb	1,730	L. Cramer	1956	22R	48 to 6	Qpp-Ql	J,E	D,IrrL	36R	12	8	5,316.4	10-23-58	DL; Dr; P12-22	
1	14cdcc	1,150	J. Miller	1957	9.5	18 to 24	Qpp-Ql	C,E	D,IrrL, Ot	PS	PS	6.3	5,312.2	4-9-62	DL; PD	
1	14dabc	2,000	S. Spano	1957	25R	6	Qpp-Ql	N	D	30R	6	2	5,296.4	2-23-57	B22; DL; Dr; P10-25	
2	14dacc	1,390	City of Arvada	1955	633	10 to 8	Kd1c	T,E	PS	143M	PS	250	5,300	10-5-60	EL	
1	15aaab	5,060	J. Smith	1956	30R	6	Qp-Qs	J,E	D,IrrL	20R	7	2	5,362.6	10-24-58	B30; DL; Dr; P18-30	
1	15abdc	4,150	J. Bazne	1956	25R	6	Qp-Qs	J,E	D,IrrL	PS	PS	17.3	5,371.6	11-5-58	DL; Dr	
1	15abdb	1,760	F. Naugle	1957	29R	6	Qp-Qs	J,E	D	20R	PS	8.3	5,370.5	11-3-58	B29; DL; Dr; TCh10-20	
1	15adad	2,780	R. Goetz	1957	29R	6	Qp-Qs	J,E	D,IrrL	5R	3	8.7	5,327.3	8-27-59	Al; 25; B21; DL; Dr; GE; Su; WL(7-24-56)5.7	
1	15adad	3,100	I. Wren	1956	16.5	6	Qpp	P,E	Irr	45R	12	2	5,323.0	1942	Dr; WL(1949)150; WS; WSC	
2	15addd	2,900	City of Arvada	1942	550R	8	Kd1c	T,E	PS	134M	165	250	5,324	4-9-62	Dr; EL; L; PP; U(1958-62); WS	
2	15addd2	2,900	do	1951	1,558R	10	Klu, K1b, K1a, K1m	N	PS, Ot	125M	PS	142.7	5,324	4-9-62	Dr; EL; L; PP; U(1958-62); WS	
2	15addd3	2,900	do	1946	150R	10	Kdmc	T,E	PS	80M	PS	245	5,324	8-4-47	Dr; EL; P1210-415; OH(415-600); U(1960)	
2	15addd4	2,900	do	1947	600R	10	Kdmc, Kd1c	N	PS	190R	110	24	5,290	8-4-47	Dr; L; WS; Pilot hole to 835 feet	
2	15bbaa	5,080	do	1946	618R	10	Kd1c	T,E	PS	90M	PS	300	5,430	10-6-60	DL; Dr; EL	
2	15ccaa	1,040	do	1955	608R	10 to 8	Kd1c	T,E	PS	64M	PS	300	5,352	10-6-60	DL; Dr; EL	
1	15dabb	2,450	M. Santarano	1956	24R	6	Qpp-Ql	J,E	D	40R	PS	5.0	5,330	7-24-56	DL; Dr; GE; P16-14	
1	15daca	1,820	J. Piper	1956	14R	6	Qpp-Ql	C,E	D	20R	6	2	5,329	10-23-58	B27; DL; Dr; P15-28; WL(7-25-56)606	
1	15dada	1,700	O. Cody	1955	25.6	6	Qpp	J,E	PS	30R	PS	6.6	5,322.2	10-23-58	B27; DL; Dr; P15-28; WL(7-25-56)606	
1	15dbbc	2,050	M. Blumel	1959	10.4	48	Qpp	N	Irr, Ot	35M	1.7 h-1/2	7.8	5,338.3	4-9-62	AT; D	
1	15dbcd	1,350	G. Burghardt	1959	25R	6	Qpp-Ql	J,E	IrrL	50R	4	6.4	5,339.1	8-28-59	Dr; L; P14-24	
1	16caab	1,800	P. Rose	1956	24R	6	Qpp-Qb, Ql	J,E	D	20R	6	9.6	5,427.1	11-12-58	B20; DL; Dr; P10-24; WL(8-56)9	
1	16ccca	500	A. Young	1956	26.0	6	Qpp-Ql	N	Irr, Ot	43M	10.3 h-1/2	6.6	5,393.8	4-9-62	AT; Dr	
2	16daad	2,300	Ridge Home and Training School	1917	1,403R	8	K1b, K1a, K1m	T,E	Irr, B	65E	PS	420	5,390	10-23-61	A3; T72. Flowed in 1937	
1	16dada	1,970	do	1956	25R	6 to 5	Qpp-Ql	C,E	Irr	PS00E	PS	3.4	5,370	10-23-61	A12	
1	16ddaa	1,100	C. Willard	1956	25R	6 to 5	Qpp-Ql	J,E	D	12R	PS	3.4	5,362.6	10-31-58	B17; Dr; L	
1	16ddcb	1,300	J. James	1956	9.0	14	Qpp	C,E	IrrL, Ot	PS	PS	6.1	5,371.2	4-9-62	Dr; L	
1	17adcc	2,740	G. Reiss	1958	53R	6	Qs, Kd1c	J,E	D,IrrL	20R	25	19.1	5,425	8-20-58	B8; Dr; FO; L; P123-53	
1	17bccc	2,830	R. Young	1957	80R	6	Qp, Kdmc	J,E	D	10R	40	13.3	5,225.3	4-9-62	B15; DL; Dr; FO; GE; P15-20, 68-73; WL(4-29-58)12.5; WSP	
1	17cbaa	2,500	M. Brocklund	1956	72R	6	Qs	C,E	D, IrrL	84R	27	3.4	5,513.2	8-23-58	B21; DL; Dr; FO; P12-50	

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
C3-69-															
1	18acdc	2,670	1,770 Collier and Mountain Realty Co.	1956	45R	24	Qc	C,E	D, IrrL	20R	0	14.1	5,543.8	8-25-58	B22; Dr; FD; L; P10-29
2	18baca	4,600	3,420 W. Williams	1955	100R	5	Kdmc	S,E	D, IrrL	13R	..	27.4	5,545	4-9-62	Dr; WL(8-15-58)27.6
2	18bacc	4,280	3,800 B. Blair	1957	125R	6	Kdmc	J,E	D	10E	..	46.4	5,555	8-15-58	DL; Dr; P14-125
2	18badd	4,100	2,900 P. Koopman	1952	130R	4	Kdmc	J,E	D	1E	..	75.5	5,585	10-30-56	Dr; MS
2	18bcaa	3,700	4,050 H. Maddox	1956	45R	4	Kdmc	S,E	D	7R	..	284.1	5,570	10-8-59	Dr; EL; Tch254-277, 301-380
1	18bcca	3,100	4,700 G. Clark	1957	46R	6	Qc, Ql	J,E	D, IrrL	24R	4	4	5,562	5-28-57	B18; DL; Dr; P136-46
1	18ccad	1,550	3,400 S. Thompson	1959	14R	24	Qc, Ql	M	D, IrrL	..	..	5.5	5,541	8-18-59	B14; Dr; DL
1	18cccd	180	5,000 E. Johann	1956	32R	6	Qc, Ql	J,E	D, IrrL	80R	5	8	5,560	3-2-56	B17; Dr; L; P15-30
2	18ccdb	500	3,280 H. Poertner	1957	520R	6 to 4	Kdmc	S,E	D	..	..	271.6	5,535	8-20-58	Dr; FD; L; P136-450
1	18dcaa	2,350	1,350 G. Conzett	1956	35R	24	Qc, Ql	J,E	D, IrrL	4R	..	12.3	5,535	8-18-59	B18; Dr; FD; L; P14-31
1	18daab	5,100	3,050 L. Hutchins	1955	31R	6	Ql	..	D, IrrL	25R	4	14	5,524	4-18-55	B28; DL; Dr; P14-31
1	18dbab	2,350	3,800 D. Trexler	1956	32R	6	Ql	J,E	D, IrrL	50R	5	6	5,528	9-18-56	B28; DL; Dr; P15-30
2	18daca	2,400	2,850 Mobile Concrete Inc.	1960	466R	9 to 6	Kdmc	S,E	Ind	30R	20	169.0	5,515	11-21-60	B28; DL; Dr; P1280-466
2	19dccb	600	1,300 K. Knowles	..	3,000R	..	..	..	Oil	..	..	..	5,520	..	DL; L
1	20daab	5,150	550 L. Pantano	..	8.5	48	Qc, Ql	C,G	Irr	100E	..	4.9	5,404	8-20-59	AA.5; D
1	20daad	4,650	100 Valley Water District	1957	36R	18	Qc, Ql	T,E	PS	210R	28	4	5,401.6	8-21-57	B36.5; DL; Dr; GE; P10-36; WS
1	20daab	4,580	420 .. do.	1957	34.5	18	Qc, Ql	T,E	PS	160R	25	4	5,403.7	11-5-57	B34.5; DL; Dr; GE; P10-34; WS
1	20dac	3,450	1,800 C. Melan	..	10.8	48	Qc, Ql	C,G	Irr	..	..	3.9	5,418.7	8-27-59	D; Su
1	20acaa	3,080	2,050 G. Jensen	1955	32R	6	Qc, Ql	J,E	D, G	30R	14	8	5,421.6	1-29-55	B30; Dr; L; P124-32
2	20accd	2,780	2,280 C. Fleharty	1956	37.2	6	Qc, Ql	C,E	D	20R	11	6.2	5,425	7-24-56	B30; DL; Dr; P130-34
1	20acda	3,100	1,400 G. Winalow	1959	25R	6	Qc, Ql	J,E	D	40R	16	..	5,415	3-6-59	B24; DL; Dr; P115-25
2	20badc	4,280	1,240 E. Purnell	1953	130R	6 to 4	Kdmc	Cyl,E	D	2R	..	40	5,440	6-14-53	DL; Dr
1	20cbad	2,180	4,180 Jefferson County	..	17.5	36	Qc, Ql	N	Irr	..	..	12.0	5,440.0	4-9-62	DL; WL(8-26-59)18.0
1	20ccab	1,020	4,400 .. do.	1959	50R	6	Qc, Ql	Tdmc	..	..	..	9	5,443.1	3-18-59	B40; DL; Dr; P140-50
1	20ccbb	1,100	5,050 Asphalt Paving Co.	1957	32R	6	Qc, Ql	J,E	Ind, B	20R	0	16	5,450	2-18-57	B31; DL; Dr; P122-32
1	20cdba	1,220	3,550 Jefferson County	..	40R	6	Qc, Ql	..	Ind	30R	4	24	5,436.9	3-21-55	B38; DL; Dr; P130-40
1	21abbd	4,700	2,120 R. Transit Mix	1955	21R	6	Qc, Ql	J,E	D	B15R	8	9	5,379	2-27-56	DL; Dr; P115-24
1	21abcc	4,250	2,360 R. Byer	1956	32R	6	Qc, Ql	J,E	D	20R	6	6	5,380.5	5-29-56	B30; Dr; L; P120-32
1	21abcc2	4,080	2,580 M. Clime	1958	28R	6	Qc, Ql	J,E	D	25R	14	8	5,382.7	6-30-58	B26; DL; Dr; P117-27
1	21abda	4,400	1,450 K. Rehfeld	1957	29R	6	Qc, Ql	J,E	D	15R	..	20	5,380.0	11-5-57	B28; DL; Dr; P119-28; WL(9-57)20
2	21accc	2,650	2,450 Valley Water District	1957	596R	20 to 6	Kdmc, K1	S,E	PS	65R	259	282	5,381	8-13-57	B10; Dr; GE; H20-13; L; Tch271-596; WS
1	21ccca	550	4,920 L. Fletcher	1958	120R	6 to 4	Qc, Ql, Kdmc	J,E	D	88R	14	8.5	5,435	8-20-58	B38; DL; Dr; FD; P120-21, 25-26, 30-31, 70-80, 105-120
2	21cccd	250	4,900 H. Whitlock	1956	75R	6 to 5	Kdmc	J,E	D	86R	15	55	5,425	3-30-56	B25; DL; Dr
1	21cdad	900	2,960 Empire Development Co.	1956	42R	..	Qc, Ql	J,E	D	6R	20	10	5,400.9	6-26-56	B35; DL; Dr; P113-29
1	21cdad	150	2,700 R. Shepard	1956	40R	6 to 5	Qc, Ql	J,E	D	14R	..	8.4	5,396.6	10-27-58	B35; DL; Dr; P124-35
1	21daac	2,000	400 J. McMillan	..	7.3	4	Qc, Ql	C,E	S, Ot	..	..	4.9	5,363.5	5-20-58	Rust-colored water
1	21dbca	1,750	2,020 Wheatridge Mutual Water Co.	1957	8.9	48	Qc, Ql	C,P	PS, Ot	..	..	5.4	5,384.7	11-10-58	B10; By4; D; L; P14-10; T48
1	21ddcb	450	1,220 L. Morton	1958	18.8	36	Qc, Ql	C,E	IrrL	80R	10	..	5,381.9	4-9-62	D; DL; P114-20; WL(8-28-59)1.6
1	22aaab	4,960	150 G. Calvert	1956	21R	6	Qc, Ql	J,E	D, IrrL	30R	11	6.7	5,326.7	10-27-58	B18; DL; Dr; P112-21; WL(9-56)5
1	22aabb	5,000	1,100 O. Becktel	1958	25R	6	Qc, Ql	J,E	IrrL	25R	4	6	5,330	9-23-58	B18; DL; Dr; P112-25
1	22aabc	4,820	1,300 J. Redmond	1958	25R	6	Qc, Ql	J,E	IrrL	25R	4	2.9	5,331.2	8-28-59	B18; DL; Dr; P112-25
2	22aacc	4,230	1,100 J. Lindsay	1957	24.8	5	Qc, Ql	N	D	20R	10	5.0	5,330.8	10-28-58	B14; DL; Dr; P112-26
2	22aadd	4,270	80 City of Arvada	1955	626R	10 to 8	Kdmc	T,E	PS	104M	300	300	5,323	10-6-60	Dr; EL
1	22ccab	1,100	4,350 Not known	..	Spring	..	Qc	N	N	<1E	..	..	5,410	..	WSP. Contact spring
2	22cdad	700	2,950 L. Wothoff	1957	59J	4	Kdmc	S,E	IrrL	820R	20	12	345.7	11-6-59	Dr; EL; L; P1320-380, 400-450, 460-525, 555-575

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Map distance east-west (feet)	Owner or user	Year completed	Depth of well casing (feet)	Diameter of casing (inches)	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
1	22acc	1,650	1,050	Not known	1956	Spring	6.1	24 Qp, Qp, Tkdu	N	Irrel	50R	2.6	5,394.5	11-3-58	WSP 88; DL; Dr; P45-10; U(1958)
1	22bdc	1,360	1,900	G. Hallenbeck	1957	575	4	Kdl	S, E	Irrel	50R	367	5,421	3-1-57	DL; Dr; EL; Tch370-574
2	22bdc	1,330	1,350	W. Jung	1957	551	6	Kdl	S, E	D	15R	350	5,420	12-8-56	DL; Dr; EL; Tch380-530
2	22cca	500	2,200	J. Meredith	1956	633	6	Kdl	S, E	Irrel	35R	6.7	5,450	11-10-58	DL; Dr; P49-18; W(2-57)10
1	22bdc	750	1,100	F. Linneman	1957	18R	6	Qp, Ql	J, E	D, Irrel	5R	13.4	5,390.6	11-19-58	DL; Dr; P48-28; W(1-57)16
1	22aca	4,350	860	H. Platt	1957	28R	6	Qp	J, E	D	12R	9.0	5,386.1	12-3-58	DL; Dr
1	23aca	3,200	1,420	M. Hajak	1957	13.9	6	Qes	J, E	D	..	1-1/2	5,372.0	11-19-58	DL; Dr; P423-33; W(7-56)24
1	23dba	3,920	720	C. Comillo	1955	33R	6	Qes, Qe	J, E	D	50R	22.8	5,392.4	11-24-58	DL; Dr; P48-42
1	23bad	4,680	2,900	W. Mumford	1956	42R	5	Qes, Qe	J, E	D	50R	8.6	5,402.4	11-19-58	DL; Dr; L; P412-43; M(7-56)8
1	23bdc	2,950	3,400	B. Ogden	1956	43R	6	Qes, Qe	J, E	D	50R	30	5,436.5	4-9-62	DL; Dr; P45-54
1	23bcd	2,850	3,400	C. Morhouse	1956	25R	6	Qes, Qe	J, E	D	10R	5	5,453.8	11-24-58	DL; Dr; P424-67; W(1-57)18
1	23bcd	1,450	4,150	W. Vaudrey	1957	17.0	22	Qes, Qe	C, E	Irrel, Ot	4M	1 1/2	5,394.8	11-21-58	DL; Dr; P418-25; W(4-57)14
1	23ccd	880	4,140	J. Minshall	1956	54R	6	Qes, Qe	J, E	D	30R	16.0	5,415.6	11-19-58	DL; Dr; P418-37; W(9-56)15
1	23ceda	450	4,200	A. Laseano	1957	67R	6	Qes, Qe	J, E	D	10R	17.5	5,426.7	12-3-58	DL; Dr; P418-37; W(9-56)18
1	23daab	2,440	420	C. Ingersoll	1957	37R	6	Qes, Qe	J, E	D	50R	2	5,400.6	4-9-62	DL; Dr; P45-54
1	23dad	1,500	730	B. Sullivan	1956	36R	6	Qes, Qe	J, E	D	50R	2	5,393.0	4-29-58	DL; Dr; P45-54
1	23dad	800	250	H. Head	1956	26R	10	Qes, Qe	..	Irrel, Ot	4M	9 1/2	5,412.7	4-29-58	DL; Dr; P45-54
1	24cab	1,650	3,150	G. Vonash	1955	21.7	6	Qes, Qe	..	Irrel, Ot	4M	4 1/4	5,412.7	4-29-58	DL; Dr; P45-54
1	24cbc	2,200	4,950	B. Eichenhuth	1955	31.1	48	Qes, Qe	J, E	Irrel	14M	17.2	5,412.7	4-29-58	DL; Dr; P45-54
1	24cba	1,250	3,450	R. Bowen	1953	20R	8	Qes, Qe	..	Irrel	..	7.9	5,413.0	12-9-58	DL; Dr; L; P410-40; W(4-57)16
1	24cbd	960	3,620	G. Wilson	1955	40R	6 to 5	Qes, Qe	J, E	D	88R	14	5,429.7	11-10-58	DL; Dr; L; P412-54; W(8-56)8
1	24cdc	250	3,280	J. Mahoney	1957	54R	6	Qes, Qe	J, E	D, Irrel	10R	2	5,441.7	12-22-58	DL; Dr; P418-50; W(6-57)12
1	25bbd	4,780	4,850	K. Gray	1956	50R	6	Qes, Qy, Qe	J, E	D	10R	35	5,455	10-19-56	DL; Dr; Tch580-718
1	25bcb	3,320	5,030	M. Greenwald	1957	718R	6 to 4	Kdlc	S, E	Irrel	18R	400	5,434.3	4-9-62	DL; Dr; P414-21; W(12-22-58)10.9
2	25bd	3,350	2,800	G. Schlaepfer	1956	23R	8	Qes, Qe	J, E	D, Irrel	60R	1	5,449.2	11-20-58	DL; Dr; L; P418-31; W(2-57)14
1	26aad	4,630	180	C. Rohler	1958	31R	6	Qp, Qe	J, E	D	5R	8.0	5,456.1	11-20-58	DL; Dr; P412-25; W(6-57)20
1	26aac	3,850	1,620	M. Preston	1957	25R	5	Qp, Qe	J, E	D	5R	26	5,483.2	4-23-56	DL; Dr; P412-25; W(6-57)20
1	26aba	3,860	2,130	L. Reid	1957	40R	8	Qy, Qe	..	Irrel	30R	13	5,444.2	9-8-59	A, S; B30; DL; Dr; P412-32; W(8-56)18
1	26ab	3,080	2,280	J. Price	1955	27.0	24	Qy, Qe, Qo(?)	J, E	Irrel	30R	4	5,480.7	11-20-58	DL; Dr; P412-32; W(8-56)18
1	26ab	3,650	250	R. Rees	1955	46.6	6	Qy, Qe	N	D	20M	8	5,464.0	11-20-58	DL; Dr; L; P410-50
1	26abd	2,050	2,260	H. Williams	1956	43R	6	Qy, Qe	J, E	D	4R	28	5,437.0	4-9-62	DL; Dr; P410-43; W(11-21-58)13.6
1	26bdc	1,380	1,580	L. Brown	1958	82R	8	Qy, Qe, Tkdu	J, E	D, Irrel	B46R	3	5,530.1	12-9-58	DL; Dr; L; P427-82
1	26dcb	3,230	1,100	J. Colasanti	1956	43R	8	Qy, Qe	J, E	D, Irrel	22R	7	5,530.3	10-31-58	DL; Dr; P410-23
1	26dcd	2,840	720	J. Gold	1956	698R	9 to 7	Kdlc, Kdlc	S, E	D	..	..	5,560	..	DL, Destroyed
2	26dcd	2,850	150	H. Eastman	1957	571R	..	Kdlc, Kdlc	N	PS	..	..	5,510	..	DL, Destroyed
2	29bbdc	4,150	4,300	Consolidated Mutual Water Co.	1929	62R	6	Ql	J, E	G	B18R	10	5,528.0	8-21-58	B62; DL; Dr; Tch56-62
1	29caa	2,440	4,190	S. Schumann	1954	100R	6	Tkdu	J, E	D	5R	..	5,472.3	..	DL
2	30abab	5,220	1,830	Rolling Hills Country Club	1928	18R	60	Qp, Qb, Ql	..	SW	..	5	5,477.3	8-3-57	DL; Dr; P410-50
1	30abc	4,400	2,350	.. do.	1957	28R	48	Ql	Cyl, H	D	..	..	5,511.0	..	DL
1	30ada	3,750	260	F. Miller	1940	40.2	48	Ql	J, E	Irrel	..	36.0	5,519.0	4-9-62	DL; Dr; W(8-5-58)32.7
1	30dad	3,390	20	F. Johnson	1956	52R	6	Ql	J, E	D, Irrel	..	..	5,516.6	..	DL
1	30dcb	2,980	1,230	R. DeVoe	1956	485R	5 to 4	Tkdu, Kdlc	S, E	D, Irrel	10R	50	5,510	4-1-61	B22; DL; Dr; P410-23
2	30dcb2	3,100	1,150	F. Spillane	1961	..	..	..	..	..	..	..	..	..	..

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet) above m.s.l.	Date of measurement	Remarks
<b>C3-69-</b>															
1	30add2	2,950	G. Newton	1954	95R	6 to 4	Q1	J.E. IrrL	D, IrrL	20R	2	11	5,507.8	7- -54	DL; Dr; OW
1	30addb	3,040	T. Muckle	1955	45R	6 to 4	Q1	J.E. IrrL	D, IrrL	20R	2	11	5,519.1	5- -8-55	B42; Dr; FD; L; WS
1	30addc	2,980	do.	1955	74R	6 to 4	Q1	J.E. IrrL	D, IrrL	15R	2	54	5,519.1	5- -8-55	B54; DL; Dr; P338-40
1	30addc2	2,720	do.	1950	50R	6	Q1	J.E. D	D			29	5,521.1	1- -58	Dr; WL(9-58)15
1	30addd	2,820	P. Johnson	1940	50R	24	Q1	J.E. D	D, IrrL				5,526		D. Dry during the spring
1	30addd2	2,780	P. Miller	1956	54R	6	Q1	J.E. D	D	5R			5,525.7	1- -58	DL; Dr
1	30addc	2,800	E. Ehlers	1955	57R	6	Q1	J.E. IrrL	D, IrrL	B12R	8	44	5,527.3	6-18-58	DL; Dr
2	30adda	3,000	Rolling Hills Country Club	1928	3,000R	15 to 8		M Oil, Ot				95.1	5,519	11-23-56	B18; Dr; L; SL. During drilling in 1928, depth to water was 200 feet when hole was 820 feet deep; the water level was above land surface when the hole was 1,225 feet deep
2	30bddd2	3,050	do.	1959	600R	6	Kdmc, Kd1c	J.E. D	SW	30R	200	300	5,480	5-30-59	B25; DL; Dr
2	30bddd	2,750	do.	1956	256R	6 to 4	Kdmc	J.E. D	D, IrrL	B10R			5,523		GRU
2	30caaa	2,460	D. Braden	1953	630R	6 to 4	Kd1c	J.E. D	D		20		5,526		B24; DL; Dr; P360-610
2	30caaa2	2,360	G. Wardle	1951	250R	6 to 4	TKdu	P.E. D	D	3E			5,526		Dr. Pumps dry in 30 minutes
1	30caab	2,450	R. Schwartz	1955	28R	36	Q1	J.E. D	D			15	5,522.4	8- -58	D
1	30caab2	2,450	E. Deatherage	1958	90R		Q1	J.E. D	D				5,524.1		Dr. Pumps dry in 15 minutes
2	30caad	2,080	M. Stovall	1952	325R	6	Kdmc	Cyl, E	D				5,531		Dr
1	30caba	2,400	M. Dupman	1900	45R	36	Q1	J.E. D	D, S	60R		43	5,524.8	8- -58	DL; WL(4-58)11
1	30cabab	2,540	A. Potter	1950		6	Q1	J.E. D	D				5,538.7		Dr
1	30cbbc	2,150	Applewood Utilities Co.	1955	71R	30 to 6	Q1	J.E. D	D	35R		37.6	5,554.8	8-26-58	B42; DL; DL; OH(49-73)
1	30cbca	1,810	A. Hayden	1948	71R	8 to 4	Q1	J.E. D	D	8E		44	5,558.2	8-1-58	Dr
1	30cabcb	1,710	L. Kalle	1954	90R	6	Q1	J.E. D	D, IrrL			45	5,540.2	6-1-58	Dr
1	30dacc	1,600	C. Hollenbaugh	1953	90R	6	Q1	J.E. D	D, IrrL			35	5,540.7	8-5-58	Dr
1	30dacc2	1,410	C. Darrigand	1953	88R	6	Q1	J.E. D	D	8E		40	5,544.5	9-5-58	Dr
2	30dcca	600	B. Stenzel	1959	380R	4	Kdmc	S.E. D		20E		226.2	5,566	7-22-60	Dr
1	30ddbc	960	H. Vayo	1952	68R	5	Q1	J.E. D, IrrL	D	8E		48.2	5,545.2	8-6-58	Dr
1	30ddbd	830	R. Elfline	1955	42.0	5	Q1	J.E. IrrL	D	5E		15.3	5,559.9	8-6-58	Dr
1	30ddbd2	820	E. Kunz	1958	94R	6	Q1	S.E. IrrL	D	20E	7.5	20.6R	5,557.0	8-12-58	Dr
2	30ddca	580	H. Thompson	1957	149	5	TKdu	M N				54.5	5,568	6-27-57	Dr; GRU; P375-149; U(1958)
2	30ddcc	250	Applewood Utilities Co.	1955	637R	8 to 6	TKdu, Kd1c	T.E. D	PS	47R	186	400	5,577	3-8-55	B20; Dr; EL; FD; L; TCH320-399, 450-637; WS
1	30ddcc2	230	do.	1955	42R	24	Q1	J.E. D	PS	30R	23	16.1	5,572.4	7-6-60	B29; DL; DL; P310-35
1	30ddcc3	100	do.	1955	202R	6	Q1, TKdu	N M	M	B9R	12	12.9	5,580	8-26-58	B30; Dr; TCH16-115; WL(11-55)28
1	30dddc	100	M. Johnson	1955	45.1	6	Q1	N M	N			14.1	5,567.1	8-12-58	Dr
2	30dddd	100	do.	1960	650R	6 to 4	Kd1c	S.E. D, IrrL	D	15R	30	438.0	5,574	7-22-60	A.75; DL; Dr; TCH30-650
1	31aaaa	4,960	H. Dutton		30R	36	Q1	C.E. D	D	20E		4	5,574.3	8-6-58	D
1	31aaa2	5,060	do.		17.3	24	Q1	D	D			9.7	5,574.0	8-6-58	D
2	31abdc	3,980	J. Creighton	1953	584R	6 to 4	Kdmc, Kd1c	Cyl, E	D	10R		490F	5,611	6-27-53	DL; Dr; P364-368, 500-522, 542-584
1	32baa	5,040	H. Dutton	1908	25R	36	Q1		D				5,557.7		D
2	32caad	2,150	G. Turre	1957	80R	5	TKdu		D	12R	48	27	5,555	3-27-57	B17; DL; Dr
1	32coba	1,300	M. Bunker	1954	40R	24	Op, Q1	J.E. IrrL	D	30R			5,579.3		Dr; WS
2	32dccc	1,100	2,500 Horton	1956	701R		Kd1c			B12R	22	550	5,626	7-16-56	B16; EL; L
1	33aabb	5,160	G. Robertson	1957	27R	6	Op, Qs	J.E. D, S	D, S	10E		11.0	5,577.7	10-31-58	DL; Dr; P316-27; WL(2-57)16
1	33abdd	4,000	H. Lienert	1956	70R	6 to 5	Op, Qs	N D	D	B10R	26	9.8	5,587.6	4-9-62	B22; DL; Dr; P315-70; WL(5-56)14; WL(11-7-58)10.0

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
<b>C1-69--</b>															
1	13acae	1,720	W. Rosensohn	1956	30R	5	Qp, Qm	J, E	D	B1R	4	1	5,589.6	10-31-58	B20; DL; Dr; P112-30
1	13adad	3,900	D. Giddings	1954	80R	5	Qy, Tdcl	J, E	IrrL	B1R	35	1-1/2	5,585.4	4-9-62	B15; Dr; GE; L; P115-80; WL(1954)25; WS
2	13adac	980	Wickstrand and Madley	1951	594R	6	Kdlic	J, E	PS	B20R	35	..	5,600	11-28-51	B3; Dr; FD; L; WS
2	13adcc	150	Consolidated Mutual Water Co.	1947	680R	..	Kdlic	T, E	PS, E	70R	..	..	5,558	3-20-56	Dr; WL(13-47)390; WL(4-54)495
2	13adcd2	80	..	1947	1,635R	13 to 8	Klb, K1a, Kfm	T, E	PS, E	85R	..	..	5,556	2-12-56	Dr; EL; L; WL(1-47)85
2	13adca	2,350	..	1927	650R	..	Kdlic	J, E	PS, E	..	..	..	5,545	..	DL; U(1960)
2	13adbc	2,300	..	1955	1,745R	10	Klb, K1a, Kfm	T, E	PS	100M	159	24	5,555	2-12-57	AT; Dr; EL; WL(13-27-55) 385.0; WS
2	13aad	4,150	E. Young	..	760R	6 to 2	Kdlic	J, E	D	..	..	..	5,412	..	Dr; WS
1	13addd	300	D. Runyon	..	25R	24	Qp	J, E	IrrL	20R	..	..	5,400	5-17-55	Dr
1	13aad	4,000	L. Kurth	1955	65R	6 to 5	Qp	J, E	D	10R	..	..	5,313	11-24-55	B21; Dr; L; P129-62
2	13adbd	1,400	Jewish Consumptive Relief Society	..	704R	..	Kdmc, Kdlic	J, E	N	..	..	..	5,410	..	DL; Dr; U(1961)
2	13adca	1,250	..	1939	820R	16 to 8	Kdmc, Kdlic	T, E	PS, B, Irr	..	..	..	5,410	7-5-39	B20; Dr; Dr; P1425-748; 319-610; 675-699, 742-788; WS
<b>C3-70--</b>															
2	13abbb	5,000	M. Forbes	1957	120R	6	Kdmc	J, E	G	12R	..	..	5,580	8-11-58	Dr; PD
2	13abab	5,010	R. Dunwoody	1956	122R	6	Tdcl, Kd1	J, E	D	20R	20	3	5,590	4-9-62	B43; Dr; FD; L; P150-74, 98-122; WL(8-11-58) 21.7; WL(9-8-60)20.6 WSP
2	13bad	4,810	R. Newman	1957	1,035R	4	Klb, K1a, Kfm	S, E	D, S	B1R	150	..	5,625	10-1-57	DL; Dr; EL; OH(876-1,015)
2	13bcbb	2,980	G. Brayfield	1943	100R	6	Kd1u	S, E	D, IrrL	25R	..	..	5,602	8-25-56	Dr; FD
1	13bbbb	2,620	Jury Estate	1953	12.5	..	Qb	C, E	D	..	..	..	5,601.1	4-9-62	D; FD; WL(8-26-58)16.0
1	13bbd2	1,420	..	1940	14R	48	Qb	T, E	IrrL	15R	..	..	5,623.6	8-26-58	D; FD
1	13adcc	2,810	P. Pattridge	..	13.2	60	Qs	J, E	D, S, E	5R	..	..	5,873.7	4-9-62	D; U(1958); WL(10-29-58) 8.4
1	13adad	2,480	..	..	12.5	60	Qs	J, E	D, S	..	..	..	5,884.6	10-29-58	D; U(1958)
2	13adac	1,680	E. Ramstetter	..	Spring	..	Ke	J, E	S	F25R	..	..	6,015	4-59	FD; WS
1	13adbc	1,950	R. Churches	1955	25R	24	Op, Q1	C, E	S	25R	..	..	5,864.8	8-22-58	DL; Dr; FD
1	13adcb	2,220	R. Sears	1940	17.3	36	Qb	J, E	D	..	..	..	5,803.4	4-9-62	D; FD; WL(11-20-58)10.6; WS
1	13adcc	2,940	Denver Water Board	..	14.3	42x54	Qb	J, E	S	5R	..	..	5,738.9	4-9-62	D; WL(11-13-58)8.6
2	13adbb	2,560	A. Baker	1946	243R	6 to 4	Kd1c, K1u	Cyl, E	D, Dy	3R	..	..	5,695	1946	Dr; FD
1	13adbc	2,180	..	..	16.2	48	Op, Qb	T, E	S	..	..	..	5,574.4	4-9-62	D; WL(8-26-58)6.6
2	13adcd	2,920	C. Ryan and Sons	1957	536	6	Kd1c, K1u	S, E	D, Ind, IrrL	5R	..	..	5,688.5	11-7-58	EL; P120-285; 495-536; WS
2	13adcd2	2,780	..	1960	1,260R	6	Klb, K1a	S, E	D, IrrL	..	..	..	5,690	4-23-60	B28; Dr; EL; L; Sa
2	13adbc	2,100	Karr-McGee	1957	497	8 to 6	Kd1c, K1u	S, E	D, Ind	12R	260	8	5,653	2-16-57	DL; Dr; EL; FD; P180-300; 350-380; 440-495; WS
2	13adbc	3,600	W. Scott	1958	450R	6 to 4	Kdmc, Kd1c	S, E	D, IrrL	10R	300	..	5,603	6-15-58	B22; Dr; EL; FD; H6-4; L; OH(360-450); P176-99, 258-281, 314-360; Sa; SL
<b>C1-71--</b>															
1	13adcd	2,900	Newton Bros. Construc- tion Co.	1956	46R	6 to 4	Qs	J, E	D	B5R	21	1	5,573.3	8-25-58	B16; Dr; FD; L; P115-46
1	13adcd2	2,890	..	..	12R	48	Qs	J, E	S	..	..	..	5,574.4	8-25-58	D
1	13adcd3	2,800	..	..	25R	6	Qs	N	..	..	..	..	5,576.0	4-9-62	Dr; WL(8-25-58)6.4
2	13adcc	4,180	W. Everitt	1956	475R	6 to 4	Kd1c	S, E	D	7R	65	3	5,620	9-4-56	DL; Dr; P114-360, 406-429; Sa; SL
2	13bbab	5,130	D. McClelland	1956	85R	6 to 5	Kdmc	J, E	D, IrrL	B2R	55	1-1/2	5,635	8-29-56	DL; Dr; FD; P110-85
2	13bdac	3,110	F. Rees	1956	400R	6 to 4	Kdmc, Kd1c	S, E	D	15R	40	1	5,605	3-27-56	B20; DL; Dr; FD; WS
2	13bdad	3,380	C. Robinson	..	130R	4	Kdmc	Cyl, E	D, IrrL	5R	40	3/4	5,606.6	Dr; FD; WSP	DL; Dr; P197
1	13bdad2	3,400	..	..	33R	48	Qs	C, E	D, IrrL	5R	..	..	5,601.0	4-9-62	B30; Dr; WL(5-13-58)9.2; WS



Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use Yield of water (gpm)	Drawdown (feet)(hours)	Depth of water (feet)	Altitude of land to surface (in feet measure above m.s.l.)	Date of measurement	Remarks
2	C3-70-13bdeb	3,110	H. Dahl, Jr.	1956	490R	6 to 4	Kalc	S.E D.S, IrrL	10R	45	2	261.1	5,605	8-12-58 B25; DL; Dr; PD; P#330-420; WSP
2	13cade	1,580	Jefferson County School Dist. R-1.	1960	555	6 to 4	Kalc	S.E	Sch	24M	75	3	252	5,588 11- -60 B13; Dr; EL; H7-5; L; Sa; SL; Tch300-409, Fairmont Elementary School
2	13cadd	1,160	W. Grandjean.	1904	425R	56	Kdl	Cyl, E	D	5E	..	125	5,589	1940 Dr; PD
1	13dcde	1,800	P. Taylor	1958	23.4	56	Qa	J.E	D, IrrL	10R	..	20.1	5,587.9	8-20-58 B40; DL; Dr
2	13dded	300	S. Oakes.	1962	398	6	TKdc, Kalc	..	D, S	B10R	22	294.5	5,580	DL; Bailed 1 gpm at 100 feet, 6 gpm at 300 feet
2	14abbb	5,220	M. Keener	1957	93R	6	Kalc	J.E	D, IrrL	5E	..	13.9	5,671	8-20-58 B57; Dr; PD; P#43-93
1	14bdca	1,800	G. Hammer	1958	59R	6	Qc	J.E	N	1R	..	43.3	5,671.5	4-9-52 B30; Dr; L; P#30-59; WL(8-20-58)28.9
1	14bdca2	1,930	H. Hays	1958	100R	6 to 5	Qc, TKdc	J.E	N	2R	..	36.6	5,688	8-20-58 B36; DL; Dr; P#30-100
1	15bbbc	5,240	E. Rasmussen	1953	94.1	6	Qc, Qa	N	D	10M	16 2-1/4	20.7	5,875	11-24-58 B32; DL; Dr; PD; WSP
2	17dddc	750	J. Walker	1956	158R	5	TKdc	S.E	D, S, IrrL	20R	..	60	6,210	7-31-61 DL
2	17dddb	550	do.	..	90R	..	..	N	..	..	..	..	..	..
2	23cdcb	610	L. Vogel.	1956	100R	6	TKdc	J.E	D	B10R	61	2	51.0	5,658 8-23-58 Dry hole, 300 foot well nearby also dry B35; DL; Dr; PD; Tch35-97
2	23dcba	1,080	Richardson Railroad Museum and Motel.	1958	595R	6 to 4	Kalc, Kalc	S.E	D	B15R	102	..	360	5,630 11- 3-58 B43; Dr; EL; L; Sa; SL; Tch364-564
1	24aabb	5,000	T. New.	1956	30R	6	Qa	..	D, IrrL	40R	12	2	8	5,568 6-20-56 B27; Dr; L; P#18-27
1	24aaba	4,950	Rocky Mountain Bible Institute	1959	24R	6	Qa	J.E	D	10R	2	..	14.8	5,575 4- 9-62 B23; DL; Dr; P#10-24; WL(4-59)12; WL(11-21-60)11.1
2	24bdad	3,560	Boise Cascade Container Corp.	1960	500R	12 to 8	Kalc, Kalc	S.E	D, Ind, B, C	24M	94	..	281	5,590 8-18-60 B40; Dr; H16-10; L; P#250-500
1	25aadb	4,400	K. Mauz.	1955	50R	6	Qp, Qb, Ql	..	D	..	..	..	5,511	..
1	25adab	3,820	H. Inman	1955	93R	6	Ql	..	D, IrrL	..	..	..	5,517	..
2	25aded	2,680	Applewood Greenhouses	1960	637R	6	Kalc, Kalc	S.E	G	25R	45	..	340	5,510 4-14-60 B22; DL; Dr; EL; H8; P#382-542, 574-606
2	25adde	2,840	I. Flores.	1955	260R	6 to 4	TKdc	..	D	4R	..	..	5,550	B33; DL; Dr
1	25bdcc	4,100	G. Leslie	1894	10.5	36	Ql	Cyl, H	D	..	..	..	5,584.9	8-15-50 D, Dry in 1962
1	25bdcc	4,280	Wade Estate	1948	35R	48	Ql	D	..	..	..	27	5,600	7-24-58 D
1	25bdcd	3,350	L. Pyle	..	Spring	..	Qc, TKdc(?)	D, S	F	..	..	..	5,620	7-24-58 D
1	25bdcd	2,810	J. Greenfield	1918	33R	30	Qc, Ql	D	..	..	..	31	5,620	8-1-58 B42; D; DL
1	25bdcd2	2,760	do.	1953	44R	..	Qc, Ql, TKdc	..	Irr	20R	21	4	19	5,620 8-1-58 D
1	25bdcd3	2,780	M. Branning.	1948	25.3	36	Qc, Ql, TKdc	..	D	..	..	..	5,625.5	7-25-58 D
1	25bdcd4	2,750	L. Pyle	..	Spring	..	Qc, Ql, TKdc	..	D, IrrL	..	..	..	5,630	7-24-58 D
1	25bdcd	2,700	C. McCauley	..	98R	6	Qc, Ql, TKdc	J.E	D, IrrL, S	3R	..	24.0	5,580	4-10-62 PD
1	25bdcd2	2,650	Not known	..	14.1	..	Qc, Ql	N	N	..	..	6.3	5,607.9	7-29-58 D
1	25bddb	3,250	M. Vaughn	1955	65R	6	Qc, Ql	..	D, S	20R	..	30	5,560	1955 Dr
1	25caab	2,570	Not known	..	7.0	36	Qc, Ql	N	N	..	..	3	5,612	7-29-58 Dr U(1958)
1	25cbab	2,460	R. Walton	..	31.3	..	Qc, Ql	..	D	..	..	22.5	5,641.5	8-15-58 D
1	25daaa	2,350	L. Warner	1949	76.2	6	Qc	..	D	..	..	29.2	5,556.4	8-1-58 Dr
2	25daab	2,460	G. Roberts.	1951	99R	6	TKdc	J.E	D	3E	..	47.9	5,565	7-30-58 Dr; P#69-99
1	25daab2	2,420	V. Carr	1954	63R	8	Ql	..	D	30R	..	..	5,550	DL, Drilled 2 dry holes nearby to 103 and 105 feet
1	25daad	2,050	H. Schmidt.	1955	50R	6	Qc, Ql	..	D, IrrL	..	..	..	5,562	..
2	25daba	2,520	J. Taylor	..	82R	6	TKdc	..	D	..	..	37.1	5,560	8-1-58 Dr
2	25dbba	1,470	E. Wilcox	1951	14R	..	Qc, Ql	..	D	..	..	6	5,568	1958 D
2	25dbbb	1,150	A. Izziatt	1951	110R	6	TKdc	J.E	D	1R	90	..	4.2	5,605 8-21-58 B3; DL; Dr; PD
1	26baad	4,050	Coors and Claar Development Co.	1959	26R	48	Qc	T.E	P5, Ind	163R	22	7	4	5,605 7-13-59 DL; P#14-26; W5

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)	Depth to water (feet)	Altitude of land to surface above (m.s.l.)	Date of measurement	Remarks
<b>C3-70-</b>															
1	26bad	4,030	G. Hockett	1916	27.7	48	Qc, Ql	..	D	..	..	21.5	5,598.6	8-15-58	D. Dry in 1962
1	26bcd	4,200	H. Blatter	1948	13R	36	Ql	..	D	..	..	3	5,600	6--58	D; FD
1	26bda	4,480	W. Mateer	1948	8R	48	Qp, Ql	M	N	..	..	.2	5,582.1	7-24-58	D; DL; U(1958). Dry in 1962
1	26bdc	4,120	V. Blatter	1861	28R	..	Ql	..	D	..	..	16	5,602	7--58	D; T50; WL(4-58)7
1	26bcd3	4,130	C. Kinnam	1956	34R	6	Ql	..	D	..	..	15	5,605.6	9-17-56	DL
1	26bdd	4,270	W. Mateer	1952	30R	48 to 30	Qc, Ql	..	D	50E	..	16.5	5,601.2	8-15-58	D; WL(4-58)20. Dry in 1962
2	26bcb	3,430	H. Mick	1955	56R	6	Tkdc	..	D	..	..	36.8	5,632.0	8-15-58	Dr
1	26bdb	3,860	G. Claar	1956	56R	6	Ql	..	D	810R	10	41	5,625.7	8-1-58	L
1	27ada	4,000	J. Githens	1958	48R	6	Ql	J.E	D	20R	..	25	5,611.0	2-10-58	DL
1	27acbb	3,200	A. Coora	1958	110R	48	Qc, Qs	..	Ind, Pr	30R	..	40.6	5,643.6	7-21-59	B60; D; DL; PFO-110
2	27ada	3,500	A. Frauenfelder	1954	100R	6	Tkdc	T.E	D, IrrL	..	..	..	5,640	..	Dr
1	27adbb	3,950	A. Coora	1959	46R	60	Qc, Ql	N	Ind, Pr	80R	3	41	5,608	6--59	B46; D; DL; Gy256. Collector perforated 6-46 feet
1	27bdd	2,810	.. do.	1911	12R	120x240	Ql	T.E	Ind, Pr	70R	..	11.2	5,635.3	7-28-58	D; MS
1	27cac	2,240	.. do.	1917	12R	120x120	Qc, Ql	C.E	Ind, Pr	70R	..	8.2	5,631.2	7-28-58	D; W7
1	27cab	2,210	.. do.	1917	12R	144x144	Ql	C.E	Ind, Pr	70R	..	11.2	5,636.5	7-28-58	D; QM
1	27cab2	2,150	.. do.	1936	23R	48	Qc, Ql	C.E	Ind, Pr	70R	..	12.6	5,635.2	7-28-58	D; QM
1	27cab3	1,850	R-1 School Dist.	1938	12R	..	Qc	C.E	IrrL	90R	..	6.2	5,654.8	4--9-62	D; WL(7-22-58)6.5
1	28ada	1,820	Coors Porcelain Co.	1957	65R	64	Qc	S.E	Ind, C	12R	37	20	5,690	10-15-57	B57; D; DL; Re
1	28add	300	C. Schoech	1942	32R	36	Ql, Qs	C.E	C	10E	..	27.0P	5,675	7-22-58	D. Static water level near land surface
1	28add2	90	F. Bonnell	1920	34.9	24	Ql, Qs	Cyl, E	IrrL	5E	..	11.3	5,689.1	4--9-62	D; WL(7-21-58)29.4
1	31aab	5,080	C. McWatt	1934	41R	..	Ql, Qs	N	M	..	..	27	5,695	1955	D
2	31aac	4,710	F. Robinson	1930	108	6	Kdmc	T.E	IrrL	..	..	95.0	5,720	8-21-58	DL; FD
1	31abc	4,570	L. Holland	1920	15.8	..	Qc, Qp, Ql	N	N	..	..	14.3	5,680.6	8-21-58	D; U(1958)
1	31bba	5,260	L. Campbell	..	20R	..	Qc, Qp, Ql	..	IrrL	..	..	15	..	8-21-58	D
1	31bab	3,810	R. Knealmeyer	1954	8R	..	Qc, Qp, Ql	..	IrrL	..	..	2	..	1958	D
<b>C1-71-</b>															
-	7bbac	4,800	B. Marvis	..	Spring	36	PC	N	D	P5R	..	..	8.365	12--7-60	FD; SG. Ten other springs on ranch used for stock
2	11cebb	2,400	V. Nelson	1956	150R	6	PC	S.E	D	2R	..	40	7,140	10--56	Dr; EZ; L; OH(20-150); SG
2	14cccd	4,780	Guy Hill School	..	18.5	..	PC	Pch, H	..	10E	..	12.5	7,325	12--2-60	Dr; FD; SG
2	19cbbb	2,400	W. Mays	1960	597	6	Tkdu	S.E	D, IrrL	15R	215	8	5,600	8-28-60	B50; Dr; L; P1385-450, 475-510, 525-585
2	31bbda	4,500	H. McCluskey	1958	850R	6 to 4	Tkdu, Kdmc	S.E	PS	15R	110	240	5,655	11-21-58	Dr; L; P1390-413, 597-620, 643-666, 712-735, 781-827
2	34abbc	4,900	Degen Bros.	1938	925R	2	Kdmc	N	D	..	..	..	5,715	..	L
<b>C4-66-</b>															
1	3aacb	4,420	Air National Guard	1944	33.7	48	Qb, Ql	T.E	Inat, E	300R	..	18.3	5,456.0	4-15-62	By2; D; GE; P121.5-J6.5; TH; WL(1942)11; WL(7-13-56)21.3; WS
1	3aacb2	4,450	.. do.	1942	23R	48	Qb, Ql	T.E	Inat, E	..	..	19.5	5,457	4-15-62	D; GE; P13.5-23.5; 81; TH; WL(1942)6; WL(2-20-61)20.1
1	3aadb	4,600	.. do.	1942	35.0	48	Qb, Ql	T.E	Inat, E	62R	..	20.0	5,458	4-15-62	D; GE; TH; WL(7-13-56)21.7; WL(2-20-61)20.6
1	3aadd	3,970	.. do.	1942	36.7	48	Qb, Ql	T.E	Inat, E	62R	..	23.0	5,470	4-15-62	D; GE; TH; WL(7-13-56)25.0; WL(2-20-61)23.7
1	3abda	4,480	Ackard Land Co.	1945	43.9	40	Qb, Ql	T.E	Irr	400E	..	11.5	5,450	9-20-60	A70(With 3bada and 3badd); D
1	3adea	3,740	Air National Guard	1942	35.5	48	Qb, Ql	T.E	Inat, E	52R	..	22.8	5,468	4-15-62	D; GE; TH; WL(7-13-56)25.0; WL(1-20-61)10.6
1	3bada	4,350	Ackard Land Co.	1945	31.2	40	Qb, Ql	T.E	Irr	365R	16	3	5,447	9-20-60	B29; P14; Dr; L
1	3babb	3,020	.. do.	1945	32.1	24	Qb, Ql	C.E	Irr, S	50E	..	14.4	5,447	9-20-60	S21
1	3bcbb	3,730	L. Jones	1955	37R	24	Qb, Ql	T.E	Ind	325R	11	3	5,438	1-23-61	B27; Dr; GE; L; P14-J2
1	3daab	2,560	Air National Guard	1942	23.3	48	Qb, Ql	T.E	PS, E	52R	..	19.5	5,458	4-15-62	GE; WL(7-13-56)11.8; WL(2-20-61)23.1

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
<b>C4-66</b>															
1	1dabc	2,080	Air National Guard	1942	24R	36	Ob.Ol	T.E	PS, E.O	175R	..	14.4	5,457.0	4-19-62	AT; Dr; GE; P616-24; TH; WL(2-20-61)13.6; WS. Yield dropped to 15 gpm in 1945
1	1ddbb	1,250	.. do. . . . .	1942	23.8	48	Ob.Ol	..	PS.E	150R	..	13.7	5,460	4-15-62	Dr; GE; P614-24; TH; WL(7-42)8; WL(2-20-61)14.5; WS. Yield dropped to 15 gpm in 1945
2	1ddcb	640	.. do. . . . .	1942	2,186R	10 to 7	Kdmc, Kdlic, Klb, Klf, Kfm	T.E	PS	220R	..	242.7	5,478	2-22-61	DL; Dr; P6890-930; 975-1,015, 1,138-1,153, 1,594-1624, 1,689-1,737, 1,908-1923, 2,027-2,155, WL(4-42)263; WS
2	4bbcc	4,250	E. Peterson	1950	545R	6	TKdu	S.E	D	20R	..	233.1	5,460	11-9-59	C; Dr; EL
1	4bdae	3,950	L. Holland	1950	32R	..	Op	N	D	..	..	15	5,443	1956	B14; D; L. Destroyed in 1959; inadequate
2	4bdae2	3,930	.. do. . . . .	1951	444R	6 to 4	TKdu	..	D	9R	120	150	5,443	1958	B10; C; Dr; L
2	5acda	3,050	A. Kirkegaard	1951	560	6	TKdu	S.E	D	20R	..	245.8	5,455	11-9-59	C; Dr; EL
2	5acdb	3,050	Boek	1956	543	..	TKdu	..	..	..	..	..	5,455	..	..
2	5bbba	5,050	Altura Drugs	1959	1,175R	..	Kdmc, Kdlic	S.E	Com	25E	..	320	5,425	4-4-59	Dr; EL. Yielded 13 gpm at 930 feet
1	5bcab	3,750	C. Dickinson	1950	72R	18	Oy.Oe	T.E	D, S, Irr	35R	6	53.2	5,444.0	4-28-58	A14; B72; Dr; PD; GE; H40; L; P640-72; Su; WL(6-56)161; WSP
2	5bcba	3,920	.. do. . . . .	1952	961R	5 to 4	Kdmc	..	D	15R	100	260	5,438	9-2-52	Dr; L; P6780-800, 840-920
2	5bdba	3,880	A. Kemas	1956	602	6	TKdu	S.E	D	13R	..	295.3	5,440	11-10-59	Dr; EL
2	5cbab	2,120	L. Morse	1956	250R	6 to 4	TKdu	..	D	2R	..	55.3	5,445	7-17-56	B16; Dr; L; WL(3-56)50
2	5ccccc	200	J. Callaway	1955	1,060	..	Kdmc	..	D	..	..	..	5,452	..	B36; Dr; EL; L
2	7bbcb	4,500	A. Allison	1956	686	5 to 4	TKdu	S.E	D	7R	25	202.0	5,425	11-10-59	Dr; EL; P6284-521, 546-570
2	7ddda	450	C. Bresnahan	1931	6,050	..	Kdmc, Kdlic, Klb, Klf, Kfm	S.E	D	P10R	..	..	5,450	7-6-61	Dr; L. Oil test; plugged back to 2,860
2	8ccccc	50	.. do. . . . .	1951	1,399	8 to 6	Kdmc, Kdlic	N	Com	88R	57	51.8	5,450	12-9-57	B16; Dr; EL; H9-7; L; P6860-1,390; WL(9-57)64
2	10abca	4,400	Air National Guard	1942	2,038	10 to 7	Kdlic, Klb, Klf, Kfm	T.E	Inst	157M	..	306.7	5,533.6	8-12-57	B13; Dr; GEL; L; P61,311-1,368, 1,783-1910, 2,034-2,161; WS. Yielded 300 gpm in 1942
2	10cabd	2,200	.. do. . . . .	1942	2,100R	10 to 7	Kdlic, Klb, Klf, Kfm	T.E	Inst	112M	..	305.5	5,560.4	2-20-61	AT; Dr; WS
2	10ddba	1,100	.. do. . . . .	1942	2,196R	10 to 7	Kdlic, Klb, Klf, Kfm	N	N	P187R	..	..	5,570.3	1942	Dr; U(1953); WS. Reported ca/ld in 1957
1	11bbad	4,630	.. do. . . . .	1942	42.6	48	Ob.Ol	..	..	150R	19.4	15.3	5,481.7	1942	AT; DL; GE
2	14bda	3,200	.. do. . . . .	1942	2,100R	10 to 7	Kdlic, Klb, Klf, Kfm	T.E	Inst	220R	..	290.8	5,592.0	2-15-61	D
2	18cbcb	1,840	M. Barr	1960	1,063R	6	Kdmc	Cyl.E	D	20R	163	320	5,568	6-10-60	Dr; L; P6923-1,029
2	20cbdb	3,800	O. Corbin	1958	960R	4	TKdu, Kdmc	..	D	15R	60	200	5,569	5-20-58	Dr; EL; H6-5; L; P6519-578, 848-906, 926-943
2	24edac	3,600	P. Setchell	1956	424R	5	TKdu	J.E	D	B12R	86	64	5,600	9-6-56	B21; Dr; L; Tch250-271, 380-424; U(1961)
<b>C4-67-</b>															
2	1abbd	4,850	J. Debbert	1956	920R	6 to 4	Kdmc	S.E	D	20R	100	370	5,391	5-12-56	B56; Dr; L; P6780-890
2	1abdb	4,550	Trailer Haven Inc.	1948	900R	..	Kdmc	S.E	PS	30E	..	..	5,390	..	Dr
2	1abdc	4,100	.. do. . . . .	1959	962R	6	TKdu, Kdmc	S.E	PS	30R	40	120	5,394	5-4-55	B32; Dr; H9-8; L; P6695-910
1	1adca	3,250	E. Burke	1956	29.0	8 to 6	Op.Oy	N	Irr	..	..	19.4	5,395	6-4-57	Dr; P620
2	1caab	2,600	R. Bolt	1956	102R	5	TKdu	..	IrrL	1R	..	30	5,415	1-13-56	B56; DL; Dr; P612-53
2	2ccaa	1,200	K. Burke	1956	86R	6	TKdu	..	IrrL	1BR	0	17	5,402	9-15-56	B45; DL; Dr; GE; P610-80
2	2daaa	2,380	Aurora Public Schools	1955	990R	6 to 4	TKdu, Kdmc	S.E	Irr	B33R	60	260	5,427	1-1-56	B15; Dr; L; Tch690-990

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude to surface (in feet above mean)	Date of measurement	Remarks
<b>CA-67-</b>															
2	3bdbb	3,800	R. Henderson.	1956	250R	6 to 5	TKdu	J.E	Irr	5R	133	6	5,362	6-5-57	B3B; Dr; L; P#132-250
2	3cadd	2,000	U.S. Air Force	1955	2,023R	8 to 6	Kd1c,K1b K1a,K6m	T.E	Irr,Sch	112M	360	..	5,370	6-55	B2B; Dr; EL; L; P#1,215-1,240, 1,400-1,440, 1,580-1,670, 1,740-1,810, 1860-1,940; SL
2	6bdec	2,900	V. A. Hospital.	1955	1,840R	10 to 8	Kd1c,K1b K1a,K6m	T.E	Irr	133M	445	24	5,309	4-26-57	AT; Dr; EL; H9; L; P#1,116-1,146, 1,367-1,740, 1,780-1,800; WL(7-1955)+42; WS
2	6cbdd	1,550	Colo. General Hospital.	1936	1,116R	12 to 8	Kdmc,Kd1c K1a,K6m	T.E	Irr	130R	300	..	5,335	3-56	B10; DL; Dr; P#640-660, 664-670, 908-920, 990-1,016; WL(12-1936) 170; WS
2	6ddec	120	G. Martin	1955	825R	6 to 4	Kdmc	..	D	6R	..	..	5,355	1955	B14; DL; Dr; P#719-825
1	7cdec	300	Denver Water Board.	1954	53R	6	Qp,Q1	..	TW	55R	23	2	5,345	12-22-54	AT; B45; Dr; L
1	8dcbb	1,200	Monaco Sports Center.	1960	100R	5	Qe	J.E	D,Irr,L	20R	8	..	5,390	4-11-62	A2; B84; Dr; L; P#55-91; WL(6-60)45; WL(11-25-60) 40.7
2	9aadb	4,500	U.S. Air Force.	1956	1,984R	8 to 6	K1b,K1a,K6m	T.E	Irr,Sch	118M	377	23	5,369	10-4-56	B53; DL; Dr; EL; Ss; SL; Tchl,570-1,926
2	10adab	3,880	Eastland Shopping Center.	1961	1,240R	8 to 6	Kdmc,Kd1c	S.E	AC,C,D, Com	75R	269	16	5,423	6-21-61	Dr; EL; H7-11; L; Ss; SL; Tchl30-900; 1,024-1,075, 1,130-1,180
2	14caba	2,350	A. Christensen.	1956	1,055	4	TKdu,Kdmc	S.E	D	..	..	..	5,471	..	Dr; EL
2	14caba2	2,450	.. do. ..	1956	1,075	4	TKdu,Kdmc	S.E	D	812R	432	10	5,471	4-7-56	DL; Dr; EL; GE; P#833-992
1	14cadd	250	W. Davis.	1956	45.7	6	Qp,Qy,Qe	J.E	Irr,L	15R	7	3	5,486	7-23-56	B48; Dr; GE; L; Tchl4-50
1	15cadd	550	W. Brame.	1956	43R	6	Qp,Qy,Qe	J.E	D	7	17	3	5,473	3-27-56	B39; Dr; L; Tchl12-43
2	16cbb	1,000	Wishing Well Corp.	1959	1,005R	4	Kdmc	S.E	PS	25R	173	..	5,424	7-1-59	B42; DL; Dr; H8-5; P#798-1,005
2	16cbbd	800	Fairmount Cemetery, Aaan.	1956	1,150R	6 to ..	TKdu,Kdmc, Kd1u	T.E	PS	23R	125	..	5,471	10-12-56	B60; Dr; EL; L; Tchl64-1,150
2	16cdca	500	R. Udesen	1956	945R	6 to 4	TKdu,Kdmc	S.E	D	11R	220	8	5,468	8-15-56	B52; DL; Dr; P#733-945
1	17cddd	250	O. Johnson.	1954	46R	8	Qb,Q1	J.E	AC,Irr,B,G	..	..	..	5,384	..	Dr
1	17cddd2	100	.. do. ..	1938	46R	8	Qb,Q1	J.E	G	..	..	..	5,384	4-21-62	Dr; WL(3-29-60)19.1
1	17dbac	2,300	B. Teets.	1948	75R	48	Qb,Q1	N	Irr	225R	..	..	5,425	1958	A20; B75
2	17dbbc	2,280	C. Thurmon.	1957	748	6 to 4	Kdmc	S.E	SS	12R	5	..	5,400	9-6-57	B15; Dr; EL; H7-5; P#643-748; QW
2	17dbdc	1,600	Johnny's Monaco Lanes	1959	1,030R	6 to 4	Kdmc	S.E	Com	42R	200	..	5,400	6-20-59	B30; DL; Dr; H6-4; P#740-854, 946-1,020
1	17ddec	50	F. Johnson.	1955	41.3	6	Qp,Qb,Q1	J.E	D	20R	10	2	5,396.7	10-26-59	DL; Dr; WL(7-23-56)25.9
1	17ddec2	900	Bradford Nursery.	1954	34R	12	Qp,Qb,Q1	C.E	Irr,Qt	21M	4.5	1/2	9.3	4-11-62	Dr; PD; WS
1	17ddec3	750	.. do. ..	1959	49R	48	Qp,Qb,Q1	T.E	Irr	421R	34	..	5,389.8	4-23-59	B49; Dr; DL; GE; P#14-49
2	17ddec4	850	Twilight Golf Club.	1959	1,020R	8 to 4	Kdmc	T.E	Irr,D,Com	100R	..	..	5,389.0	4-1-60	B33; Dr; H10-7.5; L; Tchl667-1,000
1	17ddec5	730	Bradford Nursery.	1959	32.9	48	Qp,Qb,Q1	T.E	Irr	421R	..	..	5,390.3	3-23-59	B49; Dr; DL; GE; P#14-49
1	17ddec6	530	Fairmount Cemetery, Aaan.	1940	31R	48	Qp,Qb,Q1	..	Irr,E	..	..	..	5,391.6	9-9-54	D
1	17ddec7	330	.. do. ..	1940	29R	48	Qp,Qb,Q1	..	Irr,E	..	..	..	5,391.7	9-9-54	D
1	17ddec8	400	.. do. ..	1940	26R	48	Qp,Qb,Q1	..	Irr,E	..	..	..	5,391.6	9-9-54	D
1	17ddec9	460	.. do. ..	1940	28R	48	Qp,Qb,Q1	..	Irr,E	..	..	..	5,390.7	9-9-54	D
1	17ddec10	270	.. do. ..	1940	36R	48	Qp,Qb,Q1	..	Irr,E	..	..	..	5,392.4	9-9-54	D
1	17ddec11	170	.. do. ..	1940	40R	48	Qp,Qb,Q1	..	Irr,E	..	..	..	5,392.7	9-9-54	D
1	17ddec12	140	.. do. ..	1940	39R	48	Qp,Qb,Q1	..	Irr,E	..	..	..	5,392.8	9-9-54	D
1	18abcc	4,000	C. Felton	1955	36R	8	Qp,Qb,Q1	J.E	D	150R	5	1	5,353	3-3-55	DL; P#16
1	18abcc2	2,280	L. Thiel.	1944	32R	60 to 14	Qb,Q1	T.E	Irr	100R	3	..	5,352.5	4-11-62	AL.5; Dr; WL(1944)6; WL(2-12-59)20.4



Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
1	21ccad	820	E. Casey	1954	40R	48	Qp, Qb, Ql	T, E	Irr	526M	8	24	5,418.1	3-23-60	Al30(with 3 wells); D; PD
1	21ccdd	40	do.	1954	45.8	48	Qp, Qb, Ql	T, E	Irr	899M	15	24	5,428.5	4-11-62	D; PD; WL(3-23-60)25.3; WSp
2	21dabc	1,650	D. McCoy	1955	1,020R	6 to 4	Kdmc, Kdlu	S, E	D	20R	40	4	5,502	11-1-55	B28; DL; Dr; Tch840-1.020
1	21dcdd	30	E. Casey	1954	46.9	48	Qp, Qb, Ql	T, E	Irr	300E	..	..	5,431.2	4-11-62	D; WL(3-23-60)24.7
2	22bada	4,150	B. Parker, Jr.	1953	90R	..	TKdu	J, E	D	6R	..	..	5,485	..	B32; Dr; L
2	22cbda	1,780	W. Zimmerman	1957	950R	6 to 4	Kdmc	..	D	15R	150	8	5,505	3-30-57	Dr; GE; L
2	27accc	2,720	E. Miles	1950	1,004R	6 to 4	Kdmc, Kdlu	J, E	D	F3R	..	..	5,540	1950	B13; DL; Dr
2	27adad	3,550	P. Nigal	1958	1,093R	..	Kdmc, Kdlu	..	D, S	B15R	10	..	5,568	9-22-58	B5; DL; Dr; EL; W7-5; P6983-1.03
2	27becd	2,840	J. Huntington	1950	992R	6 to 4	Kdmc	T, E D, S, Irr	P100R	..	..	+19.0	5,450	1959	A10; B32; DL; Dr; P73; WL(1950)40; WL(1958)18.5
1	27cbac	2,200	G. Lindsay	1954	52.4	18	Qp, Qb, Ql	T, E	8, Irr	385M	10.1	1/4	5,452	4-11-62	A32; Dr; PD; Su; WSp
1	27cbac2	2,300	..	..	44R	6	Qp, Qb, Ql	J, E	D	B15R	19	2	5,454	6-19-56	B42; Dr; L; P130-44
1	27cdcb	340	..	..	36.8	36	Qp, Qb, Ql	T, E	S, Irr	..	..	..	5,460.0	4-11-62	D; WL(4-1-60)23.1
2	27dbaa	2,320	..	..	285R	6	TKdu	Cy, L, W	S	..	..	..	5,562.4	4-26-60	Dr
1	28aacd	4,000	R. Graves	..	50R	18	Qp, Qb, Ql	T, E	Irr	635M	2	..	5,440.7	4-11-62	A80; Dr; WL(10-27-59)31.6
1	28acba	3,800	R. Brown	1952	45.1	26 to 10	Qp, Qb, Ql	C, E D, Ind, Ot	146M	..	3.9	1-3/4	5,415.3	5-15-58	B43; DD; FD; GE
1	28acda	3,200	Twin Lakes Tropical Aquarium	..	48R	8	Qp, Qb, Ql	J, E	F	B33R	2	..	5,441	12-15-58	B48; DL; Dr; P138-48
1	28acdc	2,730	Layne-Weatern Co.	1958	47R	6	Qp, Qb, Ql	S, E	D	50R	..	..	5,439	7-58	B46; DL; Dr; GE; P118
1	28adaa	3,850	R. Alaum	1958	61R	4	Qp, Qb, Ql	J, E	D	27R	..	..	5,453	..	B61; DL; Dr; H8-6; P10-61
1	28baab	5,250	Denver Water Board	1890	16R	30	Qp, Qb, Ql	N	PS	..	..	..	5,427	4-11-62	Gy(2)188; WL(7-21-59)11.7
															First collector installed 1886; Yielded 4 million gpd in 1890
1	28baab2	5,010	..	..	49R	24	Qp, Qb, Ql	T, E	PS, Ot	1,000R	10.3	5	5,426.7	4-11-62	AT; B49; DL; Dr; GE; P11-40
1	28baab3	5,050	..	..	36.0	6	Qp, Qb, Ql	N	Ot	..	..	..	5,427.3	4-11-62	Dr
1	28baad	4,750	..	..	45R	24	Qp, Qb, Ql	T, E	PS, Ot	1,200R	10.8	6	5,428.5	4-11-62	AT; B45; DL; Dr; GE; P410-36
1	28baba	5,250	..	..	39R	24	Qp, Qb, Ql	T, E	PS, Ot	365M	10.6	4	5,421.6	4-11-62	AT; B39; DL; Dr; GE
1	28baba2	5,240	U.S. Geological Survey	1959	48.5	10	Qp, Qb, Ql	N	Ot	..	..	..	5,421.2	4-11-62	B44; Dr; GE; L; P1; Sa; SL
1	28baba3	5,240	..	..	48.5	10	Qp, Qb, Ql	N	Ot	..	..	..	5,420.9	4-11-62	B43; DL; Dr; GE; Sa; SL
1	28baba4	5,260	..	..	48.5	10	Qp, Qb, Ql	N	Ot	..	..	..	5,421.5	7-29-59	B45; Dr; GE; L; Sa; SL
1	28baba5	5,210	..	..	48.5	10	Qp, Qb, Ql	N	Ot	..	..	..	5,421.9	10-27-59	B45.5; DL; Dr; GE; Sa; SL
1	28baba6	5,210	Denver Water Board	1959	39.6	6	Qp, Qb, Ql	N	Ot	..	..	..	5,421.3	10-27-59	Dr; WL(1955)20
1	28bada	4,300	U.S. Geological Survey	1955	44R	24	Qp, Qb, Ql	T, E	PS, Ot	900R	9.4	5	5,426.6	4-11-62	AT; Dr; GE; L; P110-36
1	28bada2	4,290	..	..	37.8	6	Qp, Qb, Ql	N	Ot	..	..	..	5,429.5	4-11-62	Dr
1	28bdca	3,080	Peter Kiewit and Sons	1955	63R	6	Qp, Qb, Ql	N	..	20R	..	..	5,428	..	B53; Dr; L
1	28bdca2	3,080	..	..	30R	16	Qp, Qb	S, E	D	100R	5	..	5,428	6-24-60	DL; Dr; PD; GE; H24; P112-18; 24-30; WS
2	28caba	2,360	L. Hudson	..	1,008R	..	TKdu, Kdmc	..	D	F	..	..	5,436	1930	Dr
1	28cabac	2,200	..	..	70R	6	Qp, Ql	J, E	D	30R	8	1/2	5,449	6-20-61	B65; DL; Dr; P130-50; WL(4-55)20
2	28cbad	2,200	G. Jacobs	1956	1,010	5	TKdu, Kdmc	S, E	D, Irr, L	20E	35	..	5,463	6-20-61	Dr; EL; L; Tch872-712; 858-898; WL(9-56)25
1	28dabc	1,650	Sullivan School	1945	32.2	6	Qp, Qb, Ql	J, E	Sch, E, Ot	..	..	..	5,447.2	4-12-62	Dr
2	28dacc	1,600	..	..	990R	6 to 4	Kdmc	J, E	Sch	F50R	..	..	5,445	8-54	B71; DL; Dr
1	28ddac	970	H. Perrin	1954	35R	18	Qp, Qb, Ql	T, E	Ind	100E	..	..	5,442	4-12-62	Dr; TH
1	28ddac2	800	..	..	35R	..	Qp, Qb, Ql	C, E	Ind	250E	..	..	5,435	..	..
2	29abab	4,980	Panorama Park Water System	..	1,060R	6 to 4	Kdmc, Kdlu	S, E	PS, E	40R	..	..	5,443	7-7-60	B27; Dr; PD; L; WS
2	30caab	2,120	P. Hay	1954	900R	6 to 4	Kdmc	S, E	..	20R	48	..	5,442	9-27-54	B16; Dr; L; P1752-900
2	31bbcb	4,430	C. Ensign	1956	220R	..	TKdu	N	N	..	..	..	5,425	..	B16; Dr; L; Dry
1	31bbcb2	4,440	..	..	59R	..	Qy	N	..	..	..	..	5,425	8-13-56	B16; DL; Dr. Inadequate

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
<b>C4-67-</b>															
2	32babb	5,100	Greenhaven Country Club	1931	1,270R	4	Kdmc, Kdlc	S, E	D	770R	..	+21	5,502	1951	Bl; Dr; L. Flowed 48 gpm in 1931
2	33baki	5,100	Public Service Co. of Colo.	1958	915R	3	Tkdu, Kdmc	S, E	D	25R	50	150	5,310	6-5-58	Dr; L; P717-915. Old well deepened from 600 feet
1	34aacc	4,150	Lindsay, Holland, and Marcus	1954	27.9	48	Qb, Ql	Cyl, G	S	5R	..	19.1	5,478.0	4-26-60	D. Formerly used for irrigation
2	34adab	4,450	C. L. Hubner Co.	1957	1,044R	6 to 4	Tkdu, Kdmc	J, E	D	870R	60	+10	5,507	12-4-57	B39; Dr; L; Tch792-1,024
1	34ddcb	400	W. Canary	1955	97R	18	Ql	T, E	Irr	770M	..	25	5,433.8	7-15-59	B96; Dr; FD; GE; B12; L; P728-96; WS
1	34dddb	550	do.	1953	95R	18	Ql	T, E	Irr	1,050M	7.1	72	5,494.9	4-12-62	Dr; WL(10-12-59)29.6; WS
1	34dddd	250	City and County of Denver	1942	72.9	24	Ql	N	Irr	700M	43.8	8	5,499.8	9-27-49	AT; B83; DL; Dr; GE; P444-74
1	34dddd2	240	do.	1942	37.5	3	Ql	M	Ot	..	..	29.0	5,500.0	7-15-59	DL
1	35bceb	3,060	H. Wislander	1938	20R	60	Qes	C, E	G	45R	3.8	..	5,476.6	3-29-60	M.3; B22; D; WL(1938)5; WL(7-48)5; WL(3-55)7 with 5 wells
1	35bceb2	2,980	do.	1948	24R	60	Qes	C, E	G	45R	4.3	..	5,485.4	5-30-59	B26; D; WL(7-48)13; WL(7-51)15; WL(3-55)16
1	35bceb3	3,000	do.	1938	22R	60	Qes	N	I, Dr, E	125R	4.9	..	5,483.1	4-12-62	B26; D; WL(1938)5; WL(7-48)12; WL(7-51)13; WL(3-55)13; WL(5-55)12; WL(4-1-60)12.9
2	35bceb4	3,080	do.	1952	1,044R	6 to 4	Kdmc	T, E	D, AC, G, B	50R	16.0	1/4	5,483.1	3-29-60	B19; Dr; L; WL(10-56)0. Flowed 60 gpm in 1952
1	35bece	2,900	do.	1938	25R	60	Qes	C, E	G	45R	5.9	..	5,481.2	3-29-60	B25; D; WL(1938)5; WL(7-48)9; WL(7-51)10; WL(3-55)11; WL(5-59)10
1	35bece2	2,960	do.	1948	23R	60	Qes	C, E	G	45R	3.8	..	5,482.1	4-12-62	B25; D; WL(7-48)10; WL(7-51)12; WL(3-55)13; WL(5-59)13
2	36caed	1,460	U.S. Corps of Engineers	1950	970R	6	Kdmc	M	Ot	2R	150	..	5,612.4	4-6-62	Dr; GR; L; WL
2	36ced2	1,460	do.	1954	1,198	8 to 6	Kdmc	S, E	D, Irr	32M	139	8	5,609.2	9-19-57	AT; B48; Dr; FD; WS
<b>C4-68-</b>															
2	3abac	4,850	State of Colorado	1907	782R	10 to 4	Kdmc, Kdlc	N	N	35R	..	..	5,273	..	B98; Dr; L; WS
1	3abcb	3,300	Continental Baking Co.	1954	46R	6	Qb, Ql	S, E	C	30R	4.5	4	5,225	6-10-60	DL; Dr; P43-46; WL(3-54)18
1	3cbdc	1,650	Hod Carriers Bldg. and Construction and Laborer's Union	1957	55.7	18	Qb, Ql	T, E	AC, Irr, L	120R	..	..	5,236	4-12-62	B51; Dr; GE; H36; L; P22-54; WL(10-23-59)24.3
2	4abac	4,750	Carb-Ice Corp.	1944	1,820	..	Klb, Klb, Kfm	T, E	C, Com	100E	..	..	5,195	11-13-57	B46; Dr; L
1	4abbd	4,580	do.	1925	50R	..	Qpp, Qb, Ql	T, E	C	500R	..	..	5,195	..	D
1	4ccaa	1,080	J. O'Keefe	1925	6.4	48	Qpp	C, G	Irr	100E	..	..	5,215	8-28-56	A1; D
1	5aacc	4,460	Public Service Co. of Colo.	1941	38R	48 to 18	Qpp, Qb, Ql	T, E	C	250R	6.2	..	5,196	1-5-61	Dr; P421.8
1	5aabc	4,450	do.	1941	29.0	48 to 18	Qpp, Qb, Ql	T, E	C	250R	..	..	5,196	1-5-61	DL; Dr
1	5aacc	4,250	do.	1956	40R	48 to 18	Qpp, Qb, Ql	N	N	300R	..	..	5,195	1956	U(1960). Formation becoming clogged, no production in 1960
1	5aacd	3,930	do.	1948	35R	48 to 18	Qpp, Qb, Ql	T, E	C	250R	..	..	5,196	1-5-61	DL; T54
1	5adab	3,700	do.	1952	42R	18 to 16	Qpp, Qb, Ql	T, E	C, E	287R	18	24	5,193.9	1-19-53	B42; DL; Dr; WS
1	5adab	3,540	do.	1953	40.1	18	Qpp, Qb, Ql	T, E	C, E	750R	21	6	5,196.7	7-10-56	AT; DL; Dr; GE; Lo17-37; WS. Clogged
1	5adac	3,420	do.	1953	36R	18	Qpp, Qb, Ql	T, E	C, E	425R	20	30	5,197.1	..	DL; Dr; GE; Lo-21-36. Clogged
1	5adad	3,270	do.	1953	36R	36 to 14	Qpp, Qb, Ql	N	N	190R	15.5	24	5,193.9	8-21-53	B34; D; L; P413-35; WS. Clogged

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
1	C4-48-3adbd	3,620	Public Service Co. of Colo.	1961	40R	18	Qpp, Qb, Ql	T, E	C	37R	22	16	5,198	3-1-61	B37; Dr; L; Lo25-40
1	3adbd2	3,160	do.	1961	43R	18	Qpp, Qb, Ql	T, E	C	60R	23	21	5,198	2-23-61	B41; DL; Dr; Lo28-43
1	3adca	2,960	do.	1953	36R	18	Qpp, Qb, Ql	T, E	C, B, E	60R	23	6	5,197.6	8-28-53	A1; B34; DL; Dr; GE; Lo21-36; WS
1	3addb	3,080	do.	1953	39.6	18	Qpp, Qb, Ql	T, E	C, B, E	310R	27	24	5,197.6	7-30-56	B,6; DL; Dr; GE; Lo25-40; WS. Clogged
1	3adcb	620	T. Garramone.	1952	38R	36	Qpp, Qb, Ql	T, E	Irr	..	..	20	5,207.6	1954	A2.5; D; F
1	3adcc	825	Maddox Ice Co.	1952	25.2	48	Qpp, Qb, Ql	M	M	..	..	13.3	5,200	4-9-62	U(1960); WL(12-14-60)14.8
1	3adcd	720	do.	1952	26R	48	Qpp, Qb, Ql	C, E	M	..	..	..	5,200	..	..
1	3adde	720	do.	1952	26R	48	Qpp, Qb, Ql	C, E	C	50R	..	..	5,200	..	D
1	3addd	700	do.	1948	36R	48	Qpp, Qb, Ql	C, E	C	50R	..	..	5,200	..	..
1	3addd2	700	do.	1952	18R	48	Qpp, Qb, Ql	C, E	C	250R	..	..	5,200	..	D; U(1960)
1	3addd3	150	do.	1947	22.5	36	Qpp, Qb, Ql	C, E	Irr	200R	..	..	5,215	..	Al
1	3addd4	240	United Dairies, Inc.	1952	25.4	48	Qpp, Qb, Ql	C, E	Ind	200R	..	..	5,215	..	Dr; Re
1	3addd5	220	do.	1952	25.4	48	Qpp, Qb, Ql	C, E	Ind	200R	..	..	5,215	..	Dr; Re
2	7aasc	4,880	B. Plummer.	1957	491	4	Tkdu, Kdmc	S, E	IrrL	8R	50	342.8	5,342	7-18-61	B20; Dr; EL; GE; H7-6; L; Tch491
1	8abad	4,750	D. Margatello	1953	36R	36	Qpp, Qb, Ql	T, E	Irr	..	..	20	5,209.4	..	All; D
1	8adad	3,600	J. Garramone.	1952	12.1	36	Qpp, Qb, Ql	T, E	Irr	..	..	9.4	5,215	8-24-56	D
1	8adad2	3,400	J. Garramone.	1952	29.0	36	Qpp, Qb, Ql	T, E	Irr, Ot	50R	..	11.0	5,215	4-9-62	D
1	8adad3	2,880	T. Capra.	1952	29.0	36	Qpp, Qb, Ql	C, E	Irr	200R	..	9.9	5,215	8-24-56	D
1	8addd2	2,850	J. Marchese	1952	28.4	42	Qpp, Qb, Ql	T, E	Irr	50R	..	11.3	5,210	7-26-62	A9; D; WL(8-23-56)11.8
1	8daaa	2,580	do.	1960	31.5	42	Qpp, Qb, Ql	M	Irr	..	..	14.7	5,210	4-9-62	D; U(1961-62)
1	9baca	4,130	Dixon and Co.	1960	31R	8	Qpp, Qb, Ql	..	I	5R	..	7	5,210	3-26-60	B25; DL; Dr. Return water from air conditioning
1	9badb	4,400	do.	1960	40R	8	Qpp, Qb, Ql	S, E	AC, IrrL	7R	..	7	5,210	3-26-60	B24; Dr; L; Re
2	9bbad	4,250	Colo. State Hwy. Dept.	1914	779R	1 1/2	Qpp, Qb, Ql	M	Ot	..	..	9.9	5,198	11-2-59	Dr; GE
1	9bbcb	3,950	Palmero Construction Co.	1952	19.4	24	Qpp, Qb, Ql	M	Ot	..	..	250	5,210	1948	B26; Dr; L
1	9bbcb2	3,480	H. Covello.	1950	28.5	48	Qpp, Qb, Ql	M	Ot	..	..	11.7	5,205	10-14-58	B28; DL; Dr
1	9bbcd	2,800	Lortaco	1950	28.9	36	Qpp, Qb, Ql	C, E	Irr	..	..	9.1	5,210	8-19-59	Destroyed in 1960
1	9bdac	700	Denver Water Board.	1954	30.5	48	Qpp, Qb, Ql	T, E	PS, E, O	840R	..	8.5	5,205	8-28-56	D
1	9dca	700	do.	1954	32.2	6	Qpp, Qb, Ql	M	Ot	100R	..	8.9	5,215.7	4-9-62	AT; B30; DL; Dr; GE; Pf2-12; U(1960)
1	9dcad2	700	do.	1956	25R	48	Qpp, Qb, Ql	T, E	PS, E	840R	..	..	5,215.9	4-12-62	AT; DL; Dr; U(1960)
1	11acaa	3,720	University of Denver.	1955	32R	8	Qb, Ql	S, E	Irr	860R	..	14.8	5,287	4-12-62	DL; Dr; Pf14-25; WL(4-1-61)15.2
1	11acac	1,400	D. Chalmers	1955	40R	5	Qb, Ql	S, E	Irr	50R	..	..	5,290.0	..	B40; DL; Dr; Pf11-40
1	11adad	2,930	E. McComb	1955	47.4	12 to 36R	Qpp, Qb, Ql	S, E	Irr	50R	..	23.5	5,303.4	10-26-59	B49; Dr; L; Pf36-48
1	11bdcb	3,050	Denver Water Board.	1954	35.4	6	Qpp, Qb, Ql	M	TM, O	54M	7.9	20.9	5,272.8	1-1-55	B39; Dr; L
1	11bdcd	2,770	M. Young	1952	36R	6	Qpp, Qb, Ql	S, E	Irr	90R	8.7	13.6	5,275.7	4-12-62	B36; DL; Dr; Pf20-35; WL(10-26-59)12.6
1	11caaa	2,500	Denver Country Club	1957	32.0	48	Qpp, Qb, Ql	T, E	Irr	350R	..	11.1	5,278.9	10-20-59	AL06(with 9 wells); B35; D; L; WL(1-1957)13
1	11daab	2,470	do.	1932	49.2	48	Qpp, Qb, Ql	T, E	Irr	500R	..	24.3	5,305.4	10-20-59	D
1	11daad	2,220	do.	1932	36.0	48	Qpp, Qb, Ql	C, E	Irr, O	390R	..	15.2	5,296.9	10-20-59	By3; D; Pf12-36
1	11daad2	2,140	do.	1955	37.6	48	Qpp, Qb, Ql	C, E	Irr, Ot	600	19	11.3	5,294.4	4-12-62	By3; D; Pf23-38
1	11daad3	2,050	do.	1932	32.8	48	Qpp, Qb, Ql	C, E	Irr, O	390R	..	13.1	5,295.1	10-20-59	By3; D; Pf24
1	11daad4	1,900	do.	1932	31.8	48	Qpp, Qb, Ql	C, E	Irr, Ot	390R	..	12.7	5,294.7	10-20-59	By3; D; Pf27
1	11dcaa	2,450	do.	1948	32.7	48	Qpp, Qb, Ql	C, E	Irr, O	350R	..	11.2	5,285.1	10-20-59	B52; D; L; Pf3-33
1	11dbbb	2,480	do.	1955	40.1	48	Qpp, Qb, Ql	T, E	Irr, Ice	750M	12	11.0	5,279.4	10-20-59	B41; D; DL; Pf23-41; WL(8-10-56)8.6
2	11dcbb	1,350	E. Mackbaugh.	1933	1,828R	8 to 6	Klb, K1a, Kfm	T, E	Sw	F136R	..	..	5,290	1933	Dr
1	11dcbb2	1,300	do.	1955	825R	8 to 6	Kdmc, Kd1c	T, E	D, Irr	B30R	60	+169	5,310	7-11-55	DL; Dr; Tch663-686, 732-825
1	11dcaa	1,050	Denver Country Club	1957	35.0	48	Qb, Ql	T, E	Irr	50R	12	13.0	5,301.6	10-21-59	B46.5; D; L
1	12acca	3,220	W. Richmond	1955	61R	6	Qb, Ql	S, E	IrrL	24R	..	32.8	5,327.0	10-26-59	B60; DL; Dr; L
1	12acab	3,050	D. Richmond	1955	70R	6	Qb, Ql	S, E	IrrL, AC	35R	15	41.2	5,327.9	4-12-62	B60; Dr; L; Pf46-69; WL(8-13-56)38.3; WL(10-26-59)28.3



Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
<b>C4-68-</b>															
1	12cab	2,460 3,250	T. Buell.	1957	35.6	21	Qp, Ob, Ql	N	Irr, Ot	175R	4	23.8	5,313.8	4-12-62	DL, Dr; GE; P19-39
1	12cab	2,460 3,820	.. do.	1957	35.4	21	Qp, Ob, Ql	J.E	Irr	175R	6	22.4	5,309.6	10-15-59	DL, Dr; GE; P20-40; WL(2-57)24
1	12cab	1,830 3,800	.. do.	1957	29.7 30 to 21	21	Qp, Ob, Ql	N	Irr	150R	10	18.1	5,306.7	10-15-59	DL, Dr; GE; P11-30; WL(2-57)18
1	12cab	1,930 2,460	.. do.	1957	40R	21	Qp, Ob, Ql	N	Irr	120R	14	2-1/2	5,314.6	2-27-57	DL, Dr; GE; P20-40; WL(2-57)24
1	12cab	1,550 3,250	.. do.	1957	28.5	21	Qp, Ob, Ql	N	Irr	160R	8	17.5	5,305.9	4-12-62	DL, Dr; GE; P11-30; WL(10-15-59)17.3
1	12cab	2,500 4,500	.. do.	1955	42.8	18	Qp, Ob, Ql	T.E	Irr	580R	9	22.3	5,306.4	10-15-69	DL, Dr; GE; P14-44; WL(4-55)21
1	12cab	1,900 4,420	.. do.	1955	42R	18	Qp, Ob, Ql	T.E	Irr	390R	13	18.8	5,303.6	10-15-59	DL, Dr; GE; P20-42; WL(4-55)24
1	12cab	1,050 4,670	.. do.	1957	49R 36 to 18	18	Qp, Ob, Ql	C.E	Irr	50R	..	16.2	5,301.5	10-16-59	B4R; Dr; GE; L; P10-49
1	12cab	620 4,900	Hughes Bros.	1929	46.1	48	Qp, Ob, Ql	N	Irr	..	..	24.3	5,311.1	4-12-62	Dr; U(1955); WL(10-19-59)21.5
1	12cab	600 5,120	Calvary Temple.	1956	50R	21	Qp, Ob, Ql	T.E	Irr	100R	5.3	22.9	5,308.3	10-16-59	Al.8; Dr; FD; GE; L; P15-35; W6
1	12cab	200 4,900	.. do.	1956	28R	21	Qp, Ob	N	N	8R	14	2	5,309.7	7-9-56	B15; Dr; GE; L; P19-19; U(1959)
1	12cab	550 2,660	M. Denton	1958	55.8	18	Qp, Ob, Ql	N	N	800R	18	17.8	5,318.6	10-20-59	B56; Dr; GE; L; P130; Ra
1	12cab	560 2,710	.. do.	1958	20.6	2	Qp, Ob, Ql	N	O	..	..	17.4	5,317.8	10-20-59	Dr
1	12cab	500 2,930	.. do.	1958	48.5	18	Qp, Ob, Ql	N	AC	450R	28	14.0	5,313.6	10-20-59	B49; DL; Dr; GE; P130; Ra
1	12cab	480 2,670	.. do.	1958	56.0	2	Qp, Ob, Ql	N	AC	410	40	16.4	5,316.7	10-20-59	DL; Dr; GE; P130; Re
1	12cab	480 2,670	.. do.	1958	20.5	2	Qp, Ob, Ql	N	O	..	..	16.8	5,317.6	10-20-59	Dr
1	12cab	550 2,580	Hughes Bros.	1947	43.7 60 to 48	48	Qp, Ob, Ql	T.E	Irr	500R	..	16.2	5,316.8	10-19-59	A64; Bv16
1	12cab	500 2,580	.. do.	1947	42R 60 to 8	8	Qp, Ob, Ql	N	Irr	..	..	16.8	5,318.6	10-19-59	Bv
1	12cab	4,800 1,600	.. do.	1954	38R	48	Qp, Ob, Ql	N	Irr	..	..	16.9	5,319.7	10-19-59	Bv
1	12cab	4,320 1,720	.. do.	1954	42R 60 to 8	8	Qp, Ob, Ql	N	Irr	..	..	16.4	5,318.6	10-19-59	Bv
1	12cab	4,490 1,750	.. do.	1954	45.6	48	Qp, Ob, Ql	T.E	Irr	500R	19	16.4	5,317.4	10-19-59	Bv
1	12cab	300 2,350	.. do.	1954	42R	48	Qp, Ob, Ql	T.E	Irr	500R	13	14.3	5,318.0	10-19-59	Bv
1	12cab	250 2,580	.. do.	1954	42R 60 to 8	8	Qp, Ob, Ql	N	Irr	..	..	15.2	5,317.2	10-20-59	Bv
1	12cab	180 2,580	.. do.	1954	42R 60 to 8	8	Qp, Ob, Ql	N	Irr	..	..	15.2	5,318.1	10-20-59	Bv
1	12cab	4,800 1,600	.. do.	1954	38R	48	Qp, Ob, Ql	N	Irr	..	..	15.6	5,322.7	10-19-59	U(1959)
1	12cab	4,490 1,750	.. do.	1954	48R	48	Qp, Ob, Ql	T.E	Irr	500R	..	15.6	5,325.9	10-19-59	By1D
1	12cab	4,550 1,770	.. do.	1954	58R	48	Qp, Ob, Ql	N	Irr	..	..	15.6	5,326.8	10-19-59	Bv
1	12cab	4,570 1,750	.. do.	1954	43.9	48	Qp, Ob, Ql	N	Irr	..	..	16.3	5,326.4	10-19-59	Bv
1	12cab	4,540 1,950	.. do.	1954	44.1	48	Qp, Ob, Ql	T.E	Irr	500R	20	18.1	5,326.8	4-12-62	D; WL(10-19-59)16.8
1	12cab	4,610 1,800	.. do.	1929	45R	48	Qp, Ob, Ql	C.E	Irr	..	..	..	5,326.1	..	D
1	12cab	4,590 1,970	.. do.	1929	45R	48	Qp, Ob, Ql	C.E	Irr	..	..	..	5,326.3	..	D
2	13cab	3,550 1,780	G. Gaer	1955	80R	5	Tkdu	N	Irr, Ot	B2R	..	13.9	5,335.3	10-9-59	B12; Dr; L; P160-80
1	13cab	3,600 1,400	F. Beeson	1955	80R	6 to 4	Ql	S.E	Irr, Ot	B25R	55	18.0	5,334.7	4-12-62	B80; Dr; L; P150-80; WSP
1	13cab	2,980 1,400	R. Williams	1955	32.5	6	Ql	C.E	Irr, L	40R	..	23.4	5,352.4	4-21-62	B33; Dr; L; P10; WL(8-13-56)22.9; WL(10-22-59)15.6; WSP
1	13cab	2,800	C. Wilmore.	1958	70R	8 to 6	Qp, Ql	S.E	Irr	60R	..	30	5,345	3-13-58	B47; Dr; B12-7; L; P15-70
1	13cab	4,000 4,780	Denver Tramway Corp.	1955	23.6 48 to 24	24	Qp	C.E	Com, E	20R	..	20.0	5,335	4-9-62	D; L; WL(11-18-60)18.2
1	13cab	4,000 4,900	.. do.	1955	26.5	48	Qp, Ql	C.E	Com	150M	1.4	10.6	5,330	11-18-60	B20; DL; Dr; GE; P18-13
1	13cab	4,000 4,850	Robinson Brick and Tile Co.	1955	32.6	16	Qp, Ql	C.E	Ind, C	100R	12	16	5,320	6-13-55	B25; Dr; L; P18-28; T40
1	13cab	3,850 3,260	Montgomery Ward & Co.	1956	45R 7 to 6	6	Qp, Ql	N	Com	8R	5B	25	5,234	4-12-56	B45; Dr; GE; L; P15-45
1	13cab	1,550 3,310	Gates Rubber Co.	1960	83R	..	Qp(7), Tkdu	N	TW	2R	..	30	5,250	..	B30; Dr; L
1	13cab	1,850 4,200	Denver Water Board.	1955	35.8	24	Qp, Ob, Ql	T.E	PS, E, D	1,100R	..	18.1	5,233.6	6-27-59	AT; DL; GE; P12-28
1	13cab	1,855 4,210	.. do.	1954	42.8	6	Qp, Ob, Ql	N	O, TW	43R	14	1-1/2	5,233.6	4-9-62	B36.5; DL; Dr
1	13cab	1,600 4,080	.. do.	1955	36.1	24	Qp, Ob, Ql	T.E	PS, E, O	1,150M	6	15.3	5,234.8	10-26-56	AT; DL; GE; P12-28
1	13cab	1,600 4,070	.. do.	1954	34.0	6	Qp, Ob, Ql	N	O, TW	51R	12	14.4	5,234.8	4-9-62	B34; O; DL; Dr

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks		
C4-68-																	
1	15ccab	1,270	4,420	Gates Rubber Co.	..	32R	48	Qpp,Ob,Ol	..	Ind,C, Pr	200R	8	..	20	5,230	2- 2-53 B12; B18; U(1960)	
1	15ccab2	1,140	4,340	..	..	31R	48	Qpp,Ob,Ol	..	Ind,C, Pr	400R	8	..	19	5,230	2- 2-53 B18; D1 S1	
1	15ccac	870	4,370	..	..	..	48	Qpp,Ob,Ol	..	Ind,C, Pr	100R	8	..	20	5,230	2- 2-53 B18; D	
1	15ccac2	830	4,420	..	..	32R	48	Qpp,Ob,Ol	..	Ind,C, Pr	100R	8	..	20	5,230	2- 2-53 B12; B18; D1 S1	
1	15ccac3	680	4,430	..	..	31R	48	Qpp,Ob,Ol	..	Ind,C, Pr	100R	8	..	..	5,230	.. .. B18; D	
1	15ccad	970	4,030	..	..	32R	48	Qpp,Ob,Ol	..	Ind,C, Pr	100R	8	..	..	5,230	2- 2-53 B12; B18; D1 S1	
1	15ccad2	850	4,230	..	..	35R	48	Qpp,Ob,Ol	..	Ind,C, Pr	400R	8	..	23	5,230	2- 2-53 B15; B18; D. Reported yield of 100 gpm in 1960	
1	15ccad3	680	4,200	..	..	31R	48	Qpp,Ob,Ol	..	Ind,C, Pr	400R	8	..	19	5,230	2- 2-53 B18; U(1960)	
1	15cdab	1,300	3,200	..	..	..	..	Qpp,Ob,Ol	..	N	250R	..	..	..	..	Dry, abandoned in 1940	
1	15cdab2	1,100	2,330	..	..	52R	6	Ob,Ol	..	N	96M	15	..	21	5,268	B47; D1; Dr; S1; SL	
1	15cdab3	840	2,370	..	..	60R	4	Ob,Ol	..	N	O	..	..	21	5,264	10- -60 B42; L	
1	15cdab3	700	2,360	..	..	42.0	18	Ob,Ol	..	T, S	Ind,C, Pr, O	..	..	..	..	..	
1	15cdab3	660	2,310	..	..	67R	6	Ob,Ol	..	Pr, O	412M	..	..	24	18.6	10- -60 AT; B47; DL; Dr	
1	15cdab3	700	2,050	..	..	67R	36	Ob,Ol	..	T, S	C, O, Pr	750M	12.6	122	22.5	5,264	10- -60 DL
1	15cdab3	430	1,850	..	..	46R	4	Ob,Ol	..	T, S	O	..	..	..	24.3	5,268	4- 5-61 AT; B47; DL; Dr; L031-46
1	15cdab3	400	1,920	Shwayder Bros., Inc.	1955	50R	18	Ob,Ol	..	T, S	AC, C, Pr	..	..	..	32.3	5,264	6- 9-62 B46; DL; Dr
1	16abab	2,550	1,100	M. Holberg	1910	18R	48	Qpp,Ob,Ol	..	Ind, O	850M	9.6	1/6	26.1	5,266	12-16-60 B49; D1; GE; L	
1	16abab2	2,350	1,000	P. Kirschner	..	33.5	48	Qpp,Ob,Ol	..	C, S	Ind, O	..	..	..	13	5,227.8	1954 D
1	16adac	1,600	400	H. Peterson	..	19.2	24	Ob,Ol	..	C, S	Q	..	..	..	14.3	5,230	4- 9-62 D1; M(10-22-56) 15.0
1	16adac2	1,620	400	..	..	35R	..	Ob,Ol	..	C, S	Q	..	..	..	9.5	5,230	8-22-56 D1; U(1959)
1	16adad	1,750	300	A. Stinnett	1956	39R	6	Ob,Ol	..	C, S	Ind, O	..	..	..	15	5,235	10- -59 B33; D1; GE; L; P19-35
1	19cdad	150	2,700	E. Stone	1955	54R	6	Qp	..	S, E	Ind, O	..	..	..	22	5,235	4-11-56 B36; D1; Dr
1	20aaba	5,050	670	A. Horton, Jr.	1955	79.0	6 to 5	Qp,TKdu	..	J, E	Ind, O	..	..	..	21.6	5,420	4- 9-62 B30; D1; Dr; P130-54; MSP
1	21abdd	3,350	750	Moether-Cox	..	35R	6	Ob,Ol	..	S, E	D	..	..	..	18.0	5,345	8-16-56 B38; D1; L; P160-79
1	21bbdd	4,180	4,250	J. Harlett	1885	310	6 to 3	TKdu, Kdmc	..	N	O	..	..	..	15	5,241	8-13-60 DL; D1; P120-35
1	21bbdd2	4,180	4,250	..	..	25.1	..	Qp, Qy	..	N	..	..	..	..	132.9	5,320	4-16-62 D1; GRL. Flowed in 1890
1	21ccdb	4,370	3,000	Radio Station KDEM.	1948	890R	6 to 4	Kdmc, Kdlic	..	S, E	AC, D, Ind, O	..	..	..	20.6	5,320	8-13-56 Destroyed in 1957
1	21ccdb2	4,830	4,330	GO-LO	1957	50R	6	Ob,Ol	..	N	Ind, O	..	..	..	375	5,390.5	1958 D1; L; M(7-48) 310
1	22bbdd	4,900	4,900	Gates Rubber Co.	..	..	48	Ob,Ol	..	..	Ind, O	748R	13.6	49	22	5,262.8	12-16-52 B36; D. Abandoned for new construction
1	22bbdd2	..	..	..	..	..	..	..	..	..	..	..	..	..	22	5,202.8	12-16-52 B36; Dn
1	22bbdd3	3,050	4,300	Ready Mix Concrete Co.	..	15.3	48	Ob	..	C, S	Ind	..	..	..	22	5,262.8	12-16-52 B36; Dn
1	22bbdc	3,600	3,850	Wright Engineering Co.	1955	466R	6	Kdmc	..	S, E	Ind	..	..	..	14.2	5,242.2	8-22-56 D
1	22ccab	1,150	4,380	Overland Golf Course.	1947	27.8	48	Qpp,Ob,Ol	..	C, E	Ind	..	..	..	260	5,258	4-28-55 D1; EL; L; Tch28-350.
1	24adac	3,500	370	Good Shepard Home	1912	879R	..	Kdmc, Kdlic	..	T, E	Ind	..	..	..	9.7	5,250	4- 9-62 D1; M(10-23-56) 9.9
1	24adac2	3,500	520	..	..	1,010R	..	Kdmc, Kdlic	..	T, E	Ind	..	..	..	369	5,435	1945 D1; L; M(1912) 12
1	26cbda	1,920	4,200	E. See.	1912	28R	..	Qp	..	J, E	D	..	..	..	18	5,325	9- 1-55 D1; Dr
1	26ccac	720	4,420	Porter Sanitarium	..	1,000R	..	Kdmc, Kdlic	..	T, E	Hosp	..	..	..	200	5,338	6-20-57 Dr
1	26ccad	700	4,100	..	..	1,020R	..	Kdmc, Kdlic	..	T, E	Hosp	..	..	..	200	5,339	6-20-57 Dr
1	26ccbd	750	4,650	..	..	1,020R	..	Kdmc, Kdlic	..	T, E	Hosp	..	..	..	200	5,339	6-20-57 B35; DL; Dr
1	26ccba	4,500	4,650	..	..	1,747R	8 to 6	Klb, Klb, Kfm	..	T, E	Hosp	..	..	..	..	5,329	5- -56 D1; EL; L
1	27acba	3,350	2,420	W. McKinney	1955	43R	6	Qp,Ol	..	J, E	Ind	..	..	..	10	5,272	5- -55 DL; D1; Tch10-43
1	27cdca	350	3,500	W. Shattuck	..	..	..	..	..	..	..	..	..	..	..	..	..
1	27cdca	350	3,500	Chemical Co.	1955	410R	6	Kdmc	..	S, E	N	..	..	..	37.3	5,263	10- 5-59 ZL; Tch125-410
1	27cdcb	1,220	2,450	W. Dowdle	1956	96.2	6	Qp,Ol	..	N	..	..	..	..	25.6	5,305	7-27-56 B34; D1; L

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
<b>C4-68-</b>															
1	28acbb	4,450	J. Scheffer	1954	128	48	Opp	..	Irr	..	..	9	5,247.3	..	D
1	28acc	4,230	do.	1954	178	48	Opp	..	Irr	..	..	8	5,229.1	..	D
1	28add	4,050	Denver Water Board	1954	138	5	Opp, Ob, Ol	..	TM, O	81M	11-1	2-1/4	5,248.9	1955	AT; B32; Dri; L
1	28add	4,000	F. Dardano	1934	18.0	48	Opp, Ob, Ol	C, E	Irr, Ot	72M	..	..	5,250	4-9-62	AS; D; WS
1	28add	2,650	do.	1900	30.7	..	Opp, Ob, Ol	C, E	Irr, Ot	88M	..	..	5,254	4-9-62	D; WSP
1	28adb	3,340	O. Smith	1937	36R	48	Opp, Ob, Ol	C, E	Irr	30E	..	..	5,251	8-21-56	Al; 25; D
1	28adb	2,850	J. Buck, Sr.	1937	16.0	48	Opp, Ob	C, E	Irr, O	30E	..	..	5,254	8-21-56	Al (with dabc and dabd); D
2	28abd	4,050	Gulf Petroleum Co.	1957	509R	6 to 4	Kmc	S, E	Ind	12R	146	..	5,320	10-5-57	DL; Dri; EL; P446-509
2	28aba	3,800	Jones Precast Co.	1957	512	4	TKdu, Kmc	S, E	Ind	..	..	..	5,318	..	DL; Dri; EL; P4372-432, 452-512
2	28cbb	1,080	C. Moxton	1954	102	6	TKdu	J, E	D	8R	5	1/2	5,358	8-28-56	Dri; WSP
1	28abc	2,000	J. Buck	1921	15.8	48	Opp, Ob	C, E	Irr, Ot	..	..	..	5,259	4-9-62	D
1	28abd	2,200	do.	1922	17.1	66 to 48	Opp, Ob	C, E	Irr, Ot	309M	1.4	1/6	5,259	4-9-62	D; PD; WSP
1	28acd	1,520	Public Service Co. of Colo.	1953	35R	24	Opp, Ob, Ol	T, E	Ind, C	1,220M	7.8	1/4	5,257.5	5-2-58	DL; Dri; FD; WS
1	28bac	2,000	J. Buck	1930	26.2	48	Opp, Ob	C, E	Irr, Ot	..	..	..	5,259	4-9-62	D
1	28bad	2,000	F. Durando	1935	21.7	48	Opp, Ob	C, E	Irr, Ot	..	..	..	5,260	4-9-62	AS; 5; D
2	28cad	720	Public Service Co. of Colo.	1948	680R	12	TKdu, Kmc	N	OT	83R	140	7	5,258.9	4-3-62	DL; Dri; EL; GE; P4140-155, 180-208, 225-270, 300-330, 335-350, 395-460, 470-505, 520-660; WS
2	28cad2	700	do.	1948	1,720R	10 to 6	Klu, Kib, Kia, Kca	N	OT	P50M	142.8	3	5,258.2	4-3-62	AT; B47; D; EL; L; P4900-915, 975-990, 1,031-1,046, 1,087-1,097, 1,177-1,201, 1,246-1,412, 1,422-1,701; WS. Original static water level +145.5
1	28dcd	100	do.	1950	32R	48	Ob, Ol	T, E	C	225R	..	..	5,262	5-50	D
1	28dcd	950	do.	1947	44R	16	Ob, Ol	T, E	C, E	770M	4.7	1/4	5,257.5	5-2-58	B35.5; DL; Dri; WS
1	28dcd	460	do.	1947	45R	16	Ob, Ol	T, E	C, E	506M	9.9	1/2	5,256.9	5-2-58	B36.8; Dri; L; WS
1	28dcd	100	do.	1950	32R	48	Ob, Ol	T, E	C	225R	..	..	5,262	..	D
1	29adac	3,400	J. Garlick	1955	37.8	24	Qp	J, E	IrrL	2R	..	..	5,380	8-20-56	B12; DL; Dri; GE; P412-28
1	29adb	1,100	E. Martin	1955	31.9	24	Qv, Tkdu	J, E	IrrL	3R	..	..	5,422	8-17-56	B8; Dri; GE; L; P46-29
1	29adc	1,500	All Saints Church	1955	45.7	5	Qp, Qv	J, E	IrrL	B10R	4	1-1/2	5,410	8-17-56	B21; DL; Dri; P436-51
1	29acd	1,500	do.	1955	43.4	5	Qp, Qv	J, E	IrrL	B10R	7	1-1/2	5,405	4-9-62	DL; Dri; P439-50; WS (8-17-56) 13.2
2	29adaa	2,500	L. McGuffin	1957	551	5 to 4	Kmc	Cyl, E	D, IrrL	7R	370	..	5,400	7-57	B18; Dri; EL; L; Sai; SL
2	29dbbb	2,450	W. Boswell	1957	557R	4	Kmc	S, E	IrrL	10R	11	..	5,415	10-1-57	A; 3; Dri; P437-557
1	29dccb	350	Arachoe Bldg. Co.	1959	60R	6 to 5	Qp	S, E	Com	15R	20	..	5,415	11-23-59	B40; Dri; Dri; P419-60
2	30cdca	470	H. Carter	1945	600R	6 to 3	Kmc	T, E	D	..	..	..	5,520	1955	Dri; U (1957)
2	30cdca	350	N. Isenhardt	1953	955R	8 to 6	Kmc, Kalc	S, E	D, IrrL	15R	100	..	5,515	7-53	B33; Dri; L
2	30cdcb	540	F. Meyer	1957	652R	8	Kmc	..	..	75R	151	..	5,515	2-9-57	Dri
1	31cdcb	350	Denver Water Board	1957	41.7	6	Qp, Qv	N	TW	40M	3.7	1-1/2	5,335.6	1-14-55	AT; B36.5; Dri; L
2	32acdc	2,940	C. Shiver	1961	585R	5	Kmc	S, E	D	B10R	150	1-1/2	5,415	8-10-61	DL; Dri; Bailed 5 gpm at 305 feet
2	32bcd	2,880	Loretto Heights College	1922	781R	..	Kmc, Kalc	S, E	Inat, Sw	20R	56	..	5,470	12-14-60	B37; DL; Su
2	32bcd2	2,750	do.	1907	798R	10 to 6	Kmc, Kalc	S, E	Inat, Sw	15R	..	..	5,470	1957	L; P4584-798; Su; ML (1905) 341; ML (7-1934) 320
2	33cbcb	800	University of Denver	1959	100R	6 to 4	TKdu	S, E	C, Ind	10R	30	..	5,298	5-30-59	B5; L; P460-100. Oil-shale pilot plant
1	33cdcc	180	I. Hiler	1954	25R	5	Qp, Ol	J, E	D	..	..	..	5,280	8-19-56	DL
1	33cdcd	180	R. Lakin	1954	26R	5	Qp, Ol	J, E	D	..	..	..	5,275	8-20-56	DL
1	33cdca	500	F. Hornbuckle	1942	19.5	1-1/4	Qp, Ob	N	OT	..	..	..	5,272.1	4-9-62	Dri

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use Yield (gpm) water	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet) (m.s.l.)	Date of measurement	Remarks
<b>C4-68-</b>														
1	33cdca2	500	F. Hornbuckle	1960	45.0	1-1/4	Qp, Qb, Ql	M	15M	..	14.1	5,272.1	4-9-62	B43; Dr; SL; Tsch10-34
1	33cdcb	540	do.	1959	40R	6	Qp, Qb, Ql	J, E	D	8	15	5,273	7-2-59	DL; Dr; P23-36
1	33cdcc	20	C. Kealiner	1954	65R	5	Qp, Qb, Ql	J, E	D	10	17.0	5,275	8-14-56	Dr
1	33cdcc2	20	Herbertson Sand and Gravel Co.	1957	25R	6	Qp, Qb, Ql	J, E	Ind B25R	17	3	5,274	2-13-57	DL; Dr; P24-25
1	33cdcb	500	R. Roberts	1958	50R	6	Qp, Qb, Ql	Cyl, E	D	30R	18	5,325	9-9-58	B38; DL; Dr; P23-50
1	33cdcb	800	R. Roy	1956	49.3	6	Qp, Qb, Ql	M	OT	..	19.6	5,269	4-9-62	DL; Dr; GRL; WSP
2	33cdcb2	820	do.	1940	501R	6	Kmc	..	PS, SW B30R	77	1/2	5,269	7-25-56	DL; Dr; SL; Tsch250
1	34cdcb	600	City of Englewood	..	16.7	18	Qp, Qb	T, E	Irr, SW 100R	..	18.9	5,312	11-8-59	A5 (with cdbb); Dr
1	34cdcb	1,000	do.	..	1,900R	6 to 3	Klb, Klb, Kfm	T, E	Irr 200R	..	13.9	5,305	11-8-59	Dr
2	35cdcd	200	Radio Station KJZ	1935	1,900R	6 to 3	Klb, Klb, Kfm	T, E	D	225R	+92	5,405	1935	DL; Dr; P21, 500-1,900; WL(1956)+16
2	36cdcb	320	Wellshire Golf Course	1956	2,012	10 to 8	Klb, Klb, Kfm	T, E	Irr, OT 260M	170	17	5,480	4-3-62	AT; B19; Dr; EL; FD; L; SL; Tsch1,680-2,012; WS
<b>C4-69-</b>														
1	1bdad	3,500	A. Wolfe	1956	95R	6	Qp, TKdu	S, E	Ind B8R	55	1-1/2	5,360	10-24-56	B20; Dr; L; P230-95; WSP
2	2babc	4,630	H. Camp	1922	640R	6 to 5	Kmc, Kdu	M	OT 15R	..	441.5	5,451	4-2-62	Dr
2	2bacc	4,060	Consolidated Mutual Water Co.	1947	685R	6 to 4	Kmc, Kdu	M	D	5R	..	5,451	5-17-60	B23; Dr; L; P255-642
2	2bacc	4,060	Consolidated Mutual Water Co.	1955	700R	9	Kmc, Kdu	T, E	PS, E 125R	..	244	5,440	12-4-55	Dr; GE; P2385-425, 505-620, 660-700
2	2bacc2	4,050	do.	1955	1,635R	9 to 7	Klb, Klb, Kfm	T, E	PS, E 80R	500	..	5,440	11-18-55	Dr; EL; P2385
1	2bacc	2,800	W. Cress	1935	30R	..	Qp	P, E	D	4R	..	5,462	2-2-57	W8
1	3bdad	2,820	S. Rose	..	57R	6	Qp	..	D, IrrL 4R	..	46	5,510	7-54	B55; Dr
1	3bdad2	2,800	do.	..	137R	6	Qp, TKdu(?)	S, E	D, IrrL B14R	60	..	5,510	4-27-55	Dr; P227-117
2	3bdcc	1,350	Consolidated Mutual Water Co.	1957	650R	9	Kmc, Kdu	T, E	PS, E 96M	156.0	24	5,470	4-1-57	AT; B19; Dr; EL; GRL; L; P2300-640
2	3dcb	1,310	do.	1952	1,700R	8 to 6	Klb, Klb, Kfm	T, E	PS, E 90R	..	345	5,465	3-30-57	EL; P2302
2	4bcb	3,720	C. Miller	1960	100R	4	TKdc	J, E	Com 7R	67	..	5,600	4-27-60	B18; Dr; L; P266-87
2	5dbd	2,200	R. Morrow	1957	200R	6	TKdc	Cyl, E	D	..	8	5,645	8-20-58	B11; DL; Dr; FD; OM(13-200); WSP
1	6adaa	3,800	C. Rose	1957	30R	..	Qp	..	TV	..	..	5,720	..	Dr; WS. Inadequate for lawn irrigation
2	6dad	1,450	W. Denton	1961	713	..	Kmc	S, E	D	10R	..	5,760	3-6-63	B20; DL; Dr; EL; H1-5; P2486-713; WL(5-6)550
2	9acab	3,950	U.S. Government	1959	91.4	3	TKdc	M	OT 7M	20.3	3	5,595	4-13-62	B11; Dr; EL; GRL; L; P20-91.4
1	10cdad	1,350	H. Scheid	1958	64R	6	Qp	J, E	IrrL 2E	..	8	5,541	1958	Dr; WS
1	10daaa	2,620	K. Jackson	1955	60R	5	Qp	J, E	IrrL 12R	..	25	5,490	1959	Dr; WS
1	10daac	2,450	J. Bondurant	..	55R	5	Qp	J, E	IrrL 10E	..	20	5,493	1955	Dr; WL(5-2-62)20.8; WS
2	10dcab	1,050	H. Reynolds	1953	1,660R	6 to 4	Klu, Klb, Klb	S, E	D, IrrL B26R	120	..	5,532	9-53	B11; Dr; FD; L; Tsch966-1,660; WS
2	10dcdb	950	L. Smith	..	400R	6	TKdu, Kdu	M	..	..	276.4	5,542	5-8-57	Dr. Inadequate for domestic use
2	10dcdb2	950	do.	1950	500R	6 to 4	Kmc	Cyl, E	D	7R	..	5,541	10-50	B7; DL; Dr; FD; WS
2	10dcdb	300	do.	1946	168R	6	TKdu	Cyl, E	D	2R	..	5,538	1957	B12; Dr; L; P270-74, 133-151
1	10dcdb2	150	do.	..	59R	6	Qp	Cyl, E	IrrL 2R	22	1/2	5,540	1954	Dr; Su
1	11bdac	4,220	T. McLaughlin	..	71R	6	Qp, TKdu(?)	M	N	2M	53.3	5,474	5-3-52	AT; Dr
1	11bdac2	4,200	G. Menninger	..	94R	..	Qp, TKdu(?)	..	IrrL	..	12.1	5,476	6-4-55	Dr
2	11bdac	3,800	C. Overgard	1954	435R	6 to 4	Kmc	..	D	8R	30	5,443	1954	B43; DL; Dr; P2385-426
1	12cdad	1,250	C. Brown	1957	100R	6	Qp, TKdu	J, E	IrrL 11M	32.6	3/4	5,419	4-30-62	Dr; FD; WL(8-8-60)11.4; WS
1	12cdad2	1,080	L. Hopkins	..	65.7	5	Qp, TKdu	J, E	IrrL	..	12.9	5,421	8-8-60	Dr; FD; WS
1	12dcb	1,750	M. Rose	1955	60R	6	Qp	J, E	IrrL 6R	..	11.0	5,405	5-1-62	WL(2-2-57)12; WS
1	12dca	450	R. Stine	1951	115R	..	Qp, TKdu	J, E	IrrL 3E	..	40	5,416	1958	Dr
2	14dcb	1,440	Sanicraft Water and Sanitation District	1956	200R	6	TKdu	T, E	PS 20R	..	..	5,460	..	Dr
1	14dcb2	1,300	do.	1956	30R	36	Qp	..	PS 35R	..	..	5,460	..	DL; Dr; EL; GE; H16; SL; Tsch100-635. Pilot hole drilled to 754 feet
2	14dcb	1,320	do.	1955	635R	8	Kmc, Kdu	T, E	PS 62R	170	24	5,473	7-9-60	..

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks	
C4-69--																
2	14dcbb2	1,320	2,470	Bancroft Water and Sanitation District	1956	1,801	8 to 6	Klb, Klb, Kfm	T, E	PS	65R	197	24	565.0	5,473	7- 9-60 Dr; EL; GE; L; Tch1, 380-1,450, 1,480-1,700, 1,780-1,800
1	15dbdd	1,500	1,600	G. Brewton.	1952	105R	6	Qs, TKdu	J, E	IrrL	15R	..	..	20	5,550	2- 2-57 Dr; WS
2	15dddb	350	380	N. King	1957	298R	5	TKdu, TKdc	S, E	D	812R	65	4	220	5,555	2-23-57 DL; Dr; PD; Tch282-297; WS. Well deepened; see addb2
2	15dddb2	350	380	.. do.	1957	384R	5	Kdmu	S, E	D	8M	130	1	200	5,555	12- -57 GRL; L; Tch306-330, 345-360; WS
2	16bbba	5,100	4,700	Glennon Heights Inc.	1947	400R	4	TKdu, TKdc	N	N	..	..	..	..	5,680	.. .. Dr; Dr. Bailed dry
2	16bddd	2,700	2,700	.. do.	1947	610R	10 to 7	Kdmu	N	N	6R	200	..	..	5,690	.. .. Dr; SL. Inadequate for public supply
2	17daadd	1,500	200	Westcraft-Alameda	1954	1,997R	8 to 6	Klb, Klb, Kfm	N	Ot	35R	355	2	309.1	5,785	4- 6-62 Dr; EL; GRL; L
2	22acbc	3,400	2,580	L. Smith.	1950	480R	60 to 4	Kdmu	Cyl, E	D	10R	..	..	107	5,545	10- -50 DL; Dr
2	23abdd	4,870	2,300	J. Richters	1950	1,900R	10	Kld, Klb, Klb	N	Oil, Ot	..	..	..	..	5,530	4-21-62 Dr; EL; GRL. Drilled to 6,064 feet. Plugged at 1,900 feet.
2	23ccac	980	4,410	R. Pershing	1956	217R	5	TKdu	S, E	D	5R	160	1/4	40	5,561	12-14-60 B17; Dr; FD
2	23ccac2	920	4,480	.. do.	1955	580R	4 to 3	TKdu, Kdmu, Kdc	N	D	2R	..	..	380	5,560	1956 Dr; EL; L; P6352-370, 390-580; WS
2	23ccac3	980	4,460	.. do.	1956	180R	6	TKdu	J, E	IrrL	..	..	..	40	5,561	12-14-60 Dr
1	23ccccc	200	5,200	J. Beer	1959	83R	6	Qs, TKdu	J, E	D	80R	65	..	10.6	5,550	5-17-62 DL; Dr; FD; P630-40; 50-83. Well deepened from 38 feet
2	23ccdc	300	4,430	G. Buehler.	..	445R	4	TKdu, Kdmu	S, E	D	20R	220	..	160	5,540	1956 DL; Dr; Tch284-307, 345-376, 384-407
2	24addc	2,800	540	Braden.	1941	4,814R	20 to 6	..	..	Oil	F	..	..	..	5,445	1934 B21; Dr; L
2	24dddc	100	150	Bit'O Sea Park Inc.	1959	490R	6 to 4	Kdmu	S, N	D	10R	20	..	350	5,436	9- 3-59 Dr; L; Tch300-450
2	25aana	5,150	150	Central Tire and Oil Co.	1957	125R	6 to 4	TKdu	..	SS	15R	60	..	20	5,438	12-11-57 Dr; L; Tch58-70, 80-103, 110-125
2	25aada	4,450	150	Carter Oil Co.	1959	506R	4	Kdmu	S, E	SS	10R	30	..	300	5,458	8-14-59 B38; DL; Dr; EL; Tch453-506; WS
2	25aadd	4,200	150	Socony Mobile Oil Co.	1957	500R	6 to 4	TKdu, Kdmu	S, E	SS, AC	5R	75	..	150	5,485	12-20-57 B42; DL; Dr; Tch265-285, 450-478
2	25adda	3,200	200	M. Fredricks.	1957	335R	6 to 4	Kdmu	S, E	Com	8R	15	..	260	5,485	12-20-57 DL; Dr; EL; Tch287-323
1	25bbbc	4,780	5,270	Green Gables Country Club.	1960	13.5	1-1/2	Qp	N	O	..	..	..	3.2	5,462.4	11-21-60 B6.5; DL; Dr
1	25bbbc2	4,760	5,270	.. do.	1960	18.5	1-1/2	Qp	N	O	..	..	..	3.2	5,461.7	11- 8-60 B12.5; Dr; L
1	25bbbc3	4,740	5,270	.. do.	1960	13.5	1-1/2	Qp	N	O	..	..	..	1.9	5,461.6	11-21-60 B9.5; DL; Dr
1	25bbbc4	4,730	5,270	.. do.	1960	18.5	1-1/2	Qp	N	O	..	..	..	2.7	5,461.6	11- 8-60 B13.0; DL; Dr
1	25bbbc5	4,700	5,270	.. do.	1960	13.5	1-1/2	Qp	N	O	..	..	..	2.2	5,461.8	11- 8-60 B11.0; DL; Dr
1	25bbbc6	4,690	5,270	.. do.	1960	13.5	1-1/2	Qp	N	O	..	..	..	2.3	5,461.9	11- 8-60 B9.5; DL; Dr
1	25bbbc7	4,680	5,270	.. do.	1960	13.5	1-1/2	Qp	N	O	..	..	..	2.8	5,461.7	11- 8-60 B8.0; DL; Dr
1	25bbbc8	4,740	5,230	.. do.	1960	13.5	1-1/2	Qp	N	O	..	..	..	2.5	5,459.1	11- 8-60 B6.5; DL; Dr
2	25bbbc9	3,380	5,060	.. do.	1951	700R	8 to 4	Kdmu, Kdc	S, E	D	25R	..	..	370	5,470	4- -51 B5; Dr; L
2	25ccba	1,120	4,770	H. Swan	1935	1,962R	6	Kdmu, Kdc	S, E	D, IrrL	20E	..	..	296	5,550	1957 B2; Dr; Gun552, 555, 636, 656, 825; L; SL; WS. Plugged at 985 feet
1	26aadd	4,750	280	Green Gables Country Club.	..	27.0	18	Qp	T, E	Sani	45M	5.6	24	..	5,463.6	11- 2-60 AT; DD; FD; GE
1	26aadd2	4,670	290	.. do.	1960	13.5	1-1/2	Qp	N	O	..	..	..	1.6	5,464.3	11- 8-60 B10.0; DL; Dr
1	26aadd3	300	4,220	Hiawan Ranch.	..	7.9	1-1/4	Opp	N	Ot	..	..	..	1.0	5,400	4-17-59 Dr
1	27bccd	2,850	4,630	Olson and Marica.	..	73R	..	Qs	..	..	2R	39	1/4	30	5,649	9-21-56 Dr
2	27bccd2	2,740	4,710	.. do.	..	284	6	TKdu	N	Ot	..	..	..	187.8	5,647	1- 2-57 Dr; GRL
2	27cbab	2,360	4,480	H. Parsons.	..	275R	6	TKdu	N	D	<1R	..	..	138.6	5,596	5- 7-57 Dr; GRL; U(1957)
2	27cbab2	2,360	4,460	.. do.	1956	157	..	TKdu	..	D	<1R	..	..	49.0	5,596	5- 7-57 Dr; EL. Drilled to 300 feet; hole caved at 157 feet

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
2	C4-69-27cbba	2,620	4,710 A. Olson.	1957	694R	..	Kdmc, Kdlc	..	D	17R	68	300	5,680	9-24-57	DL; Dr; EL; GE; H8; Tch398-500, 632-694
2	27cbbb	2,460	5,220 L. Strohman	1958	668R	6	Kdmc, Kdlu	S, E	D	B12R	40	290	5,600	3-7-58	Dr; EL; L; Pf557-579, 643-666
2	28accc	2,800	2,400 C. Morree.	1956	645R	..	Kdmc, Kdlu	S, E	D	..	..	..	5,620	..	DL; Dr
2	28adcd	2,750	2,880 E. Exier.	1956	655R	6 to 4	Kdlc	..	..	B7R	50	460	5,650	8-5-56	Dr; DL; Sa; Tch561-631
1	31cdcc	20	3,440 Freedman and Wilson	1958	55R	7 to 6	Qe	J, E	..	20R	..	18	5,610	3-17-59	Dr; FD
1	31cdcc	50	1,850 .. do.	1961	13R	48	Qe	S, W, PS	..	17R	8	5	5,580	6-7-61	B13; Qy130; L
1	31cdcd	150	1,500 .. do.	1960	46.7	6 to 5	Qe	J, E	PS	6R	..	9.3	5,580	11-15-60	B20; Dr; L; Pf20-50
1	31cdcd2	150	1,400 .. do.	1960	36.6	6	Qe	S, E	PS	50R	..	10.3	5,580	11-15-60	B20; DL; Dr; Pf20-38; WSP
1	34abcc	4,750	1,000 D. Buchanan	..	25.0	24	Qpp, Ol	N	Irr, Ot	54M	15.3	3	5.405	4-12-62	AT; B25; Dr
1	34abaa	4,960	1,550 A. Lago	1955	15.1	16	Qpp, Ol	N	Irr, Ot	1,000R	4	2	5.405	4-12-62	A80; Dr; L; Pf7-16. Adjacent to sump
1	35babbb	4,970	3,900 D. Buchanan	..	5.9	48	Qpp, Ol	N	Irr, Ot	..	..	4.5	5.393	4-12-62	B13; D. Collector and sump
1	35babbb2	5,000	3,900 .. do.	..	5.6	6	Qpp, Ol	N	TW, Ot	..	..	3.0	5.390	4-17-59	Dr
2	35ddcc	750	500 E. Cavalier	1957	685R	6	Kdmc, Kdlc	S, E	D, IrrL	50R	..	58.6	5.430	6-28-57	DL; Dr; EL; GRL
1	36cbba	2,500	4,900 Bear Creek Swim and Country Club.	1959	58R	6	Qpp, Ol	..	SW	30R	4	..	5.365	4-28-59	B39; Dr; L; Pf23-58
1	36cbdd	2,300	4,900 .. do.	1959	40R	8	Qpp, Ol	J, E	SW	50R	7	..	5.160	6-20-59	DL; Dr; Pf10-25
2	36cdcd	740	1,500 A. Mielan.	1957	719R	8	Kdmc, Kdlc	N	PS	B60R	128	40	5.340	1-18-57	B24; Dr; EL; L; Tch200-630
2	C4-70-1adac	3,450	470 Colo. National Guard.	1932	1,786R	15 to 3	Kdmc, Kdlc, Klb, Kla, Kfm	S, E	Inst, Irr	45M	..	120	5,733	1953	B25; Dr; FZ; GRL; Gun1, 421-1,424, 1,443-1,445; L; Pf498-517, 524-580, 742-800; WS. Pumping level below 475 feet in 1957
2	4cbcc	2,100	5,000 City and County of Denver.	1928	90R	6	PC	J, E	Inst	..	..	50	7.310	12-1-60	B12; DL; Dr; FD; SG. Buffalo Bill Museum
2	4daab	2,400	450 H. Shelton.	1956	98R	8 to 6	PC	J, E	D	15R	..	60	6.075	5-1-61	B21; Dr; FD; FZ; L; Pf75-95; SG; WS. Water from fractures between 89 and 91 feet
1	8bbcd	4,050	4,900 R. Van Horn	..	18.0	24	PC	P, E	D	6M	4.7	2	7.370	7-10-61	AT; D; SG; WS
1	10dad	3,320	120 East Tin Cup, Inc.	1959	90R	5	Qp, Kl	S, E	Com	30R	..	25	6.040	12-23-59	B25; Dr; L; Pf48-60, 70-90, ML(1961)15
2	10dbac	2,180	1,970 Magic Mountain.	1957	622R	8 to 6	WPI	S, E	Com	63M	214	8	6.160	8-21-57	AT; B9; Dr; EL; L; OH(50-622). Yields maximum of 177 gpm; flows when not pumped
2	11aacd	4,200	750 Williams-Woodward Engineering Co.	1955	1,968R	9 to 6	Kdlc, Klb, Kla, Kfm	S, E	Com, Cons	50R	..	8	6.009	7-26-60	B2; Dr; EL; L; Pf946-1,077, 1,679-1,700, 1,742-1,851; WS
1	11bbcc	3,400	5,200 East Tin Cup, Inc.	1957	42.5	6	Qp	S, E	Com	..	..	5.3	6.030	6-27-60	Dr; FD
2	15adbb	..	.. J. Bumpus	..	485	6	Pf	..	D	B1R	..	46	6.300	8-6-57	DL; Dr; EL; OH(23-483). Water-entry log
2	16bdca	3,080	2,870 Mother Cabrini Shrine	..	Spring	..	PC	..	Inst	P2E	..	..	7.095	7-26-57	PD; SG. Flow from fractures
2	21dbbc	3,000	2,540 A. Rooney	1954	275R	4	Ka	N	D	P2M	..	+11.7	5.985	5-11-55	AT; Dr; FD; H8; L; Pf207-225; WS; WSP
2	21dcba	1,180	2,220 .. do.	..	48.5	6	Kb	C, E	D	9M	1	1/4	5.950	7-22-60	Dr; WSP; WS. Flows in winter
2	23dcba2	1,070	2,210 B. Glotch	1953	52R	6	Kb, Ka	J, E	D, IrrL	25R	..	2.5	5.950	7-22-60	A.75; B5; Dr; FD; L; Pf35-52; WS. Flows in winter
1	26dbcc	3,350	3,670 E. Nelson	..	Spring	..	Qc	..	D, Pond	P3R	..	..	6.052	7-18-56	PD

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)	Depth to water (feet)	Altitude to surface (in feet above m.s.l.)	Date of measurement	Remarks
<b>C4-70--</b>															
1	26cdac	1,180	Denver Water Board.	1957	32R	10	Qp, Q1	T, E	PS, E	10R	10	10.8	6,011	5- 6-58	Dr; GS; L; P221-31
2	26cdcb	1,300	City and County of Denver.		Spring		Pt		M	PSR			5,900	7-10-56	FD
2	27dcaa	2,410	do.		Spring		Pt		Inst	15R			6,840	5-13-59	FD; WS
2	27dcdb	840	do.		Spring		Pt		M	6M			6,560	5-12-59	FD; WS
2	27dcdd	850	do.		Spring		Pt		M	<1R		9.3	5,995	7-21-56	EL; FD; GRL
1	29abd	4,000	Idledale Water and Sanitation District	1940	Spring		Qpp, PC	M	PS				6,860	5- 5-61	WS
1	29aca	3,730	do.	1940	Spring		Qp	C, E	PS			1.0	6,820	5- 5-61	D
2	29cac	3,400	V. Mine.	1953	20R	30	PC	Cyl, E	D	<1R		5	6,890	6- 6-61	D; 80. Dry 1955 to 1957
2	29cda	3,100	K. Dyest.	1957	48R	6	PC	D	D	3	37	18	6,840	2-25-57	B15; Dr; L; SG
2	29dcb	3,050	E. Marley	1959	88R	6	PC	E, E	D	<1R		23.0	6,790	1-17-61	B12; Dr; FD; L; SG
1	32abc	4,700	Idledale Water and Sanitation District	1949	30R	48	Qpp, Q1	Cyl, E	PS	20R		2	6,440	5- 5-61	Dr; QY
1	33bcab	3,650	W. Ballard.	1957	29R	5	Q1, PC	J, E	D	4R		10	6,395	9- 3-57	B38; Dr; L; P417-29; SG
2	34baa	5,230	City and County of Denver.		Spring		PC	M	M	F15E			6,485	5-12-59	FD; SG; WS
-	C4-71-12cada	1,820	Mount Vernon Country Club.		92R		Q1, PC		PS	21			7,640		Dr; SG; WS Thirteen wells and 1 spring supply a total of about 68 gpm
-	13cadc	1,450	Girl Scouts of Denver	1957	202R	6	PC		D	<1R		34	7,960	6-17-57	DL; QH(47-202); P250-47; SG
-	24aac	4,050	Hastings.		200R		PC		D	<1R			7,300		DL; Dr; SG
<b>C5-65--</b>															
2	3bdab	3,690	U.S. Air Force.	1959	1,574R	16 to 12	Kdmc, Kalc	M	D	150R	86	16	5,812	10-28-60	AT; EL; Sa; SL
2	5bfb2	3,690	do.	1959	2,102R		Kalc, Kib, Kib, Kfm	S, E	D	200R	70	30	5,812	4-20-59	AT; EL; L; P41, 126-1, 274, 1, 348-1, 408, 1, 470-1, 570; Sa; SL Well drilled to 2,102 feet, later plugged at 1,570 feet
2	18bdac	3,530	H. Cooper	1959	790R	6 to 4	TKdu	Cyl, M	S	12R	10		5,992	6-12-59	Dr; L; P450-590, 660-690, 760-790
2	19cbbc	2,270	J. Assey.	1960	449R	6 to 4	TKdu	S, E	D	12M	210		6,075	4-25-60	B1; Dr; FD; H7 5; L; Tch214-449
2	29babb	5,000	Federal Aviation Agency	1957	600R	6 to 4	TKdu	Cyl, E	D	4E	300	48	6,160	2- -58	C; Dr; EL; L; Tch193-439, 531-600; WS, WS
2	30aabb	5,050	C. Quick.	1960	550R	6	TKdu	St, E	D, E	11R			6,135	11-25-60	C; Dr; H6-4; L; P430-550
2	31cccc	50	U.S. Air Force.	1950	677R	6 to 4	TKdu	T, E	D	25R	59	8	6,168	12-26-50	Dr; FD; L; P485-677; WS, WS
<b>C5-66--</b>															
2	6bada	4,290	Meadow Hills Country Club.	1956	2,187R	8 to 6	Kib, Kib, Kfm	S, E	11R	873R	84	3	5,719	8-31-56	B26; Dr; EL; L; Sa; SL; Tch297
2	6badc2	4,300	do.	1956	1,278R	12 to 8	Kdmc, Kalc	S, E	11R	873R	25		5,720	9-15-56	DL; Dr; FD; Tch264; WS
2	6dbbd	2,160	Meadow Hills Land Co.	1957	2,182R	8 to 6	Kib, Kib, Kfm	M	PS	B166R	196		5,723	7- 7-60	DL; Dr; EL; H11-7; Sa; Tch162
2	6dbbd2	2,120	do.	1957	1,291R	10 to 8	Kdmc, Kalc	S, E	PS	177R	136		5,723	9- 3-57	DL; Dr; EL; H13-9; Tch308
2	12dacc	1,550	E. Rippe.	1962	990R	6	TKdu	S, E	D	5R			5,900	2- 6-62	C; Dr; L; Sa; SL
1	18cadb	1,660	City of Aurora.	1958	95R		Qp, Qb, Q1	T, E	TM, O	1,450M	16.1	48	5,601.7	7-12-58	AT; B103; Dr
1	18cadc	1,150	Corps of Engineers.		60R		Qp, Qb, Q1	T, E	11R, OC	1,084M	12.9		5,626.7	4-12-62	Dr
1	18dadd	20	do.		61.2		Qp, Qb, Q1	M	11R, OC	300R			5,644.5	4-12-62	Dr
1	19aaaa	5,250	J. and T. Mea	1958	64R	18	Qp, Qb, Q1	T, E	D, O	300R	13		5,644.5	7- 3-58	A, S; 860; Dr; GE; H21; L
1	19aada	4,300	F. Schlegler.	1951	51R	18	Qp, Qb, Q1	T, E	D, O, B, 11R	900R	12	8	5,635.8	9- 1-59	A, 25(1959); A25(1956)Dr

Table 2.---Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield of (gpm)	Drawdown (feet)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
1	13adac	4,050	Denver Wholesale Florists.	1960	58R	48	Qp, Ob, Ql	T, E	AC, G, B	900R	12	8	5,630	2--60	A-7; B57; D
1	13adcd	2,800	2,000 Corps of Engineers.	1940	39.2	7	Qp, Ob, Ql	Cyl, M	8, Ot				6,630.6	4-12-62	Dr
1	13addd	2,700	P. Meiss.	1940	53.6	24	Qp, Ob, Ql	T, E	Irr, Ot	1,400R	8		5,628.9	4-12-62	A50; Dr; U(1959)
1	13baaa	4,940	City of Aurora.	1958	112R		Qp, Ob, Ql	T, E	SW	1,570M	26.4	48	5,613.3	Dr; A112; Dr; TH	
1	13bdad	3,310	Corps of Engineers.		35.2	24	Qp, Ob, Ql	T, E	Irr, O				5,620.8	4-12-62	Dr; Q2; U(1959); WL(7-9-56)17.7; WL(9-1-59)10.7
1	13bdde	2,980	do.		32.2	48	Qp, Ob, Ql	M	Irr	300R			5,622.5	9-1-59	A30; Dr; U(1959)
2	13cdca	600	E. Talley	1959	1,350R	8 to 6	Kmc, Kdic	S, E	PS	30R	136		5,670	4-18-59	B38; Dr; EL; FU; H11-7; Tch20-1,300; WS
2	13cdca2	590	do.	1959	245R	6	TKdu	S, E	PS	30	200		5,670	5-12-59	Dr; Dr; H11-7; Tch115-135; 175-225
1	13deed	2,000	Valley Country Club	1955	48R		Qp, Ob, Ql	T, E	Irr, Ot	955M	10.2	24	5,633.1	4-12-62	A65; AT; B47; Dr; L
1	13deed2	2,070	do.		29.3	1-1/2	Qp, Ob, Ql	M	Ot				5,630.4	4-12-62	Dr
1	13deed3	2,040	do.		35.0	1-1/2	Qp, Ob, Ql	M	Ot				5,633.2	4-12-62	Dr
1	13deed4	2,110	do.		30.3	1-1/2	Qp, Ob, Ql	M	Ot				5,632	6-6-59	Dr
2	13dbaa	2,360	do.	1956	1,199R	8 to 6	TKdu, Kdic	T, E	SW, Com	8100R	64	4	5,664.5	11-6-56	B18; Dr; EL; L; Tch1,056-1,176
1	13ddcd	190	City of Aurora.	1955	25.8	4	Qp, Ob, Ql	M	Ot				5,637.7	4-12-62	Dr
1	13ddcd2	160	do.	1955	109R	18	Qp, Ob, Ql	T, E	PS	1,200R	41	48	5,638.2	4-12-62	Dr
1	13ddcd3	170	do.	1955			Qp, Ob, Ql	T, E	PS				5,640.6	6-19-57	B109; Dr; G8; L; Lo20-109
1	13ddcd4	120	do.	1955	43.2	4	Qp, Ob, Ql	M	Ot				5,640.3	4-12-62	Dr
1	13dddd	20	do.	1955	58R	18	Qp, Ob, Ql	T, E	PS, Ot	1,300R	38		5,642.3	4-12-62	Dr
1	13dddd2	120	do.	1955			Qp, Ob, Ql	M	Ot				5,640.0	10-28-59	Dr
1	13dddd3	20	do.	1955	26.0		Qp, Ob, Ql	M	O				5,640.0	4-12-62	Dr; WL(6-19-57)15.7; WL(10-28-59)16.1
1	13dddd4	160	do.	1955			Qp, Ob, Ql	M	O				5,785	7-14-62	Dr; L; P5; 188-1,377; WL(5-62)160
2	20addd	3,000	J. Cava	1962	1,377R	6 to 4	Kdic, Kdic	S, E	D	24R			5,638.7	4-12-62	A65; B47; Dr; L
1	20ccdd	950	Valley Country Club	1955	48R	18	Qp, Ob, Ql	T, E	Irr, Ot	955R	13		5,647.8	4-12-62	A42; Dr
1	20ccdd2	150	O. Gillen	1957	52.1	24	Qp, Ob, Ql	T, O	Irr, Ot	1,000R	14		5,860	3-25-57	B5; C; Dr; EL; FU; GE; L; P5276-450
2	28aaac	4,940	J. Winters.	1957	450R	4	TKdc	M	D	2R	222	36	5,672.4	1959	B3; Dr; FU; L; WL(5-55)40; WS. Flows in winter
2	29baab	5,150	D. Wardock.	1957	160R	4	TKdu	J, E	D	10E			5,654.0	4-12-62	A40(with bcha); Dr; FU; WSP
1	29bbdc	4,100	do.	1950	55R	24	Qp, Ob, Ql	T, E	Irr, Ot	873M	12.0	9	5,655.9	4-12-62	D
1	29bbcb	3,850	do.		42.3	60	Qp, Ob, Ql	T, E	Irr, Ot	400R	9		5,678.4	4-12-62	A120; Dr; FU; WS
1	29ddcc	50	O. Smith.		64R	24	Qp, Ob, Ql	T, E	Irr, Ot	650M		168	5,679.3	4-12-62	Dr
1	29ddcc2	50	do.		49.6	24	Qp, Ob, Ql	M	Ot	500R			5,642.2	9-27-57	Dr; FU; WS. Flowed in 1916
2	30aaaa	5,200	D. Wardock.	1916	400R	6	TKdu	J, E	D	6M	20.0	1/2	5,643.6	6-18-57	B75; Dr; GE; L; Lo20-106
1	30aaea2	5,150	City of Aurora.	1956	106R	24	Qp, Ob, Ql	T, E	PS	2,060R	31	26	5,644.2	4-12-62	Dr
1	30aaea3	5,190	do.	1956		3	Qp, Ob, Ql	M	Ot				5,645.4	4-12-62	Dr
1	30aaea4	5,040	do.	1956		3	Qp, Ob, Ql	M	Ot				5,644.8	4-12-62	Dr
1	30aaea5	4,970	do.	1956	38.1	24	Qp, Ob, Ql	T, E	PS	1,370M	13.6	26	5,647.9	4-13-62	Dr
1	30adaa	4,500	do.	1956	98R	24	Qp, Ob, Ql	T, E	PS	1,440R			5,649.4	4-13-62	Dr
1	30adaa2	4,550	do.	1956	36.6	3	Qp, Ob, Ql	M	Ot				5,648.5	4-13-62	Dr
1	30adaa3	4,400	do.	1956	39.1	3	Qp, Ob, Ql	M	Ot				5,650	6-24-61	B98; Dr; GE; L; Lo33-98
1	30adaa4	4,320	do.	1956	37.4	24	Qp, Ob, Ql	T, E	PS	1,070R			5,660	6-24-61	B80; Dr; GE; L; Lo35-80
1	30adaa5	3,850	do.	1961	98R	24	Qp, Ob, Ql	T, E	PS	1,440R			5,707.2	4-13-62	Dr; FU; WSP
1	30adaa6	2,750	do.	1961	80R	24	Qp, Ob, Ql	T, E	PS	1,440R			5,706.2	4-13-62	Dr; FU; WSP
1	32adcc	50	J. Race		31.5	24	Qp, Ob, Ql	T, E	Irr, Ot	1,300M	19.5	336	5,711.2	4-13-62	Dr; FU; WSP
1	32adcd	250	do.		49.4	24	Qp, Ob, Ql	T, E	Irr, Ot	1,189M	27.5	336	5,706.2	4-13-62	Dr; FU; WSP
1	33cbcc	1,400	J. Kragelund.	1945	44.8	24	Qp, Ob, Ql	T, E	Irr, Ot	350M	16.2	336	5,711.2	4-13-62	A127; Dr; FU; QW



Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
1	C5-66-33cbb	800	J. Race	1955	44.8	18	Qp, Qb, Ql	T.E	Irr, Ot	315M	..	0.2	5,701.4	4-13-62	M20(1956); A35(1957); M45; Dr; L; P221-46; M8
2	33cbbd	950	do.	1958	230R	4	Tkdu	..	D, S	74M	..	..	5,744	4-27-59	Dr; PD
2	33cbbd	600	R. Race	1958	263R	7 to 4	Tkdu	..	D	30R	30R	17	5,770	2-4-58	R36; DL; Dr; P2233-263
1	C5-67-2abca	4,600	Corps of Engineers	1943	118R	..	Qp, Qb, Pkdu	..	TM	..	..	3	5,510	10- -43	B102; Dr; L; P21for adjacent test holes)
1	2baec	4,650	do.	1943	58.0	..	Qb, Ql	..	O	..	..	23.9	5,524.2	4-13-62	Dr; ML(10-14-59)23.8
1	2bbdd	4,630	City and County of Denver	1961	105R	..	Qb, Ql	T.E	Irr	1,220M	19.4	..	5,511	3-3-61	B103; Dr; G2; L; P250-103; S2; SL
1	2baec	4,450	Corps of Engineers	1943	48.2	..	Qb, Ql	..	O	..	..	29.4	5,528.7	4-13-62	Dr; ML(10-14-59)30.6
1	2baec	4,250	do.	1943	102	..	Qb, Ql	..	O	..	..	28.6	5,528.6	4-13-62	Dr; ML(10-14-59)29.6
1	2bbaa	5,150	City and County of Denver	1961	102R	18	Qb, Ql	..	Irr	1,050M	13.6	..	5,502	6-24-61	B90; Dr; G2; L; P247-102; S2; SL
1	2bbdd	4,000	Corps of Engineers	1943	70.0	..	Qb, Ql	..	O	..	..	30.5	5,525.2	4-13-62	Dr; ML(10-14-59)31.4
1	2bbcb	3,830	do.	1943	52.5	..	Qb, Ql	..	O	..	..	18.2	5,511.3	4-13-62	Dr; ML(10-14-59)19.0
1	2bbcb	3,550	do.	1943	52.5	..	Qb, Ql	..	O	..	..	19.0	5,511.4	4-13-62	Dr; ML(10-14-59)19.8
1	2bbcb2	3,400	do.	1943	77.3	..	Qb, Ql	..	O	..	..	19.6	5,511.4	4-13-62	Dr; ML(10-14-59)20.6
1	2bbcb	3,180	do.	1943	44.0	..	Qb, Ql	..	O	..	..	19.9	5,511.4	4-13-62	Dr; ML(10-14-59)20.9
2	3bbdd	4,150	Cherry Creek School District	1958	1,005R	6	Kdmc	S.E	D, S	830R	50	..	5,548	9-8-58	B35; Dr; EL; H7; L; P2900-1,005
1	3dccb	1,750	Corps of Engineers	1943	55R	..	..	N	TM	..	..	..	5,555	10- -43	Dr; L; P21for adjacent test holes). Dry
2	5bdaab	3,900	W. Johnson	1957	2,092R	8 to 6	Kib, Kib, Kcm	N	P8	883R	100	..	5,560	4-12-57	L43; Dr; EL; L
2	5ccda	550	R. Braun	1951	1,096R	7 to 4	Kdmc	T.E	D, S	74R	..	70	5,615	11-26-51	DL
2	6abab	5,100	Continental Oil Co.	1957	1,100R	4	Kdmc	S.E	88	813R	20	..	5,548	6-13-57	B44; DL; Dr; ML(4-1957)100
2	6abbb	5,150	Standard Oil Co.	1958	1,104R	5	Kdmc	S.E	88	825R	86	..	5,554	6-17-58	B26; DL; Dr; H7-6; Tcb842-1,104; WSp
2	6abdb	4,900	Saleway Stores, Inc.	1957	1,100R	4	Kdmc	S.E	Com, C	14R	20	..	5,555	1-14-57	DL; Dr; Tcb300
2	6babb	4,400	S. Klepart	1956	1,064R	6 to 4	Kdmc	..	Ot	825R	CO	..	5,560	4-3-62	Dr; EL; L
2	6cccd	20	E. Gliman	1940	822R	..	Tkdu, Kdmc	T.E	D, S	710R	..	440	5,465	7- -40	DL; Dr
2	7babb	4,540	E. Honnen	1898	79R	7 to 3	Kdmc	..	D	784R	..	..	5,480	1898	Dr; P213-797. Flowed 36 gpm in 1923, 19 gpm in 1951, 9 gpm in 1957
2	7ccdd	250	T. Hodge	1959	1,062R	4	Kdmc	S.E	D	33M	30	..	5,540	10-7-59	B42; DL; Dr; EL; P2805-865, 915-990
2	7dbac	2,000	J. Tyler	1955	1,269R	6 to 4	Kdmc, Kdlic	J.E	D	730R	..	..	5,520	6-13-57	B28; Dr; L
2	8bbaa	5,000	T. Carlile	1955	1,992R	6 to 4	Kib, Kib	S.E	D	B40R	59	..	5,600	5- -55	B15; Dr; EL; L
2	8bbad	4,160	J. Marrone	1953	1,346R	6 to 4	Kdmc, Kdlic	..	D	750R	50	..	5,600	9- -53	DL; Dr
2	9ccbb	500	Paradise Valley Country Club	1961	1,473R	8 to 6	Kdmc, Kdlic	T.E	Com, Irr, S	150R	..	135	5,672	5-10-61	M43; DL; Dr; M11-7; P21,009-1,028, 1,111-1,292, 1,349-1,440; Su
2	9ccdc	200	Prospector Motel	1957	1,199R	4	Kdmc	..	Com	826R	20	..	5,665	5-11-57	B18; DL; Dr; Tcb310
2	10bcb	3,920	Cherry Creek Village	1960	1,400R	6 to 4	Kdmc, Kdlic	T.E	P8	225R	121	24	5,640	5-11-60	B49; Dr; EL; L; SL; P78; Tcb990-1,440
2	10cabb	2,490	Cherry Creek School District No. 5	1957	1,150R	8 to 6	Kdmc	S.E	Sch	100R	390	..	5,670	3- -53	DL; Dr; P2176; MS
2	10cbab	1,930	do.	1957	1,200R	4	Kdmc	T.E	Irr	860R	100	..	5,622	9-19-57	A21; DL; Dr; Tcb822-1,200
1	13aadd	4,050	Corps of Engineers	..	43.8	48	Qp, Qb, Ql	T.E	Irr, Ot	1,000R	7	..	5,584.0	4-13-62	D
1	13abdc	4,100	do.	1940	45.1	60	Qp, Qb, Ql	T.G	Irr, Ot	800R	..	..	5,579.6	4-13-62	A35; Dr; U(1957-59)
1	13baca	4,550	do.	..	7.0	36 to 24	Qp, Qb, Ql	N	Irr, S, O	..	..	2.0	5,569.7	7-14-59	Dr; U(1957)
1	13badd	4,050	do.	1914	28R	48 x 60	Qp, Qb, Ql	M	Irr	900R	10	..	5,576.5	7-13-59	A50; R29; U(1957-59)
1	14aabb	5,150	do.	1937	55.2	8	Qp, Qb, Ql	Cyl, M	D, S, Ot	..	..	44.3	5,593.9	10-28-59	DD; U(1957)

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
C5-67-															
2	16bcd	3,350	Petroleum Research Corp.	1957	1,498R	6 to 4	Kdmc, Kdlic	S, E	Com	155R	43	70	5,696	3-9-57	AS2; Dr; EL; L; P21,000-1,498; WS
2	16bdc	1,660	E. Baker	1955	1,078R	4	Kdmc	S, E	D	20R	46	92	5,695	5-55	DL; Dr
2	16dcb	530	Castlewood Fire Dept.	1958	1,196R	6 to 4	Kdmc		D	860R	35	80	5,710	6-5-58	B2; DL; Dr; H7-5; Tch845-869, 925-961, 968-1,196
2	16dc	100	Castlewood School	1951	980R	6 to 4	Kdmc	S, E	Sch	830R	48	82	5,717	1951	DL; Dr; U(1960)
2	17abc	4,650	E. Lambert	1956	900R	6 to 4	Kdmc	S, E	D	332R	71	48.0	5,610	6-11-57	B12; DL; Dr
2	17abd	4,100	L. Anderson	1956	1,165R	6 to 4	Kdmc, Kdlic	S, E	D	25R	101	84	5,630	10-3-56	B70; DL; Dr; EL
2	17add	3,200	E. Croft	1956	1,034R	5 to 4	Thdu	Cyl, E	D	4R	95	145	5,693	1-10-56	B70; DL; Dr; P665-865
2	17add2	3,200	E. Croft	1958	1,030R	4	Kdmc	S, E	D	14R	12	128	5,693	5-22-58	B12; DL; Dr; P6850-1,020
2	17bcb	3,100	S. Clark	1956	1,058R	4	Kdmc	J, E	D, IrrL	830R	8	2	5,551	5-22-56	B3; DL; Dr; Tch276
2	17bdd	2,720	Greenwood Hills Mutual Water Co.	1959	1,406R	6 to 4	Kdmc, Kdlic	T, E	P8	864R	25	87.2	5,602	9-16-60	B1; DL; Dr; EL; PDI; Tch787-803, 824-1,118, 1,195-1,406, W8
1	17cbb	2,320	Cherry Creek School District No. 5		27.5	36	Qy	Cyl, H	M				5,554.9	6-26-57	Dr; U(1957)
2	17cbb2	2,450	do.	1957	1,400R	6	Kdmc, Kdlic		Sch	860R	20	3.7	5,572.5	6-26-57	B2; DL; Dr; EL; GEL; Tch903-1,009, 1,196-1,381; W8; slight odor
2	17cd	100	Greenwood Mills Mutual Water Co.	1960	1,375R	6 to 4	Kdmc, Kdlic	T, E	P8	240R	115	+14	5,543	5-24-60	AT; B19; Dr; H7-5; L; P6713-145; B11-1,039; 1,123-1,207, 1,249-1,291
2	17dca	1,750	D. Miller	1956	1,060R	5 to 3	Kdmc	S, E	D	16M	190	5	64.4	6-11-57	DL; Dr; T76. Abandoned in 1961
2	17dca2	1,730	do.	1957	1,155R	4	Kdmc	S, E	D, IrrL, P8	40R		84	5,642	1961	AT; B1; DL; Dr; EL; H6-5; P6865-1,152
2	18baad	4,920	M. Markheip		972R		Kdmc	J, E	D	F100R			5,523	6-11-57	Dr; PD
2	18bba	4,950	M. Taylor	1934	1,165R	6 to 4	Kdmc	J, E	D	F100R			5,480	6-11-57	DL; Dr
2	19aacc	4,100	L. Lord	1954	945R	6 to 4	Kdmc	S, E	D, IrrL	50R	40	20	5,580	5-19-54	B43; DL; Dr; P665-865, 705-725, 765-785, 835-845, 885-905
2	19bbbb	5,180	Denver Water Board	1958	886	6 to 4	Kdmc		D, IrrL, Qc	F13M		+43.0	5,494.3	4-2-62	AT; B22; Dr; EL; PDI; H6-5; L; Tch692-876; W8; flowed 90 gpm when drilled
2	21acbb	3,650	M. Jones	1959	1,206R	6 to 4	Kdmc		D	860R	31	97.7	5,700	10-7-59	B12; Dr; L; Tch898-1,206
2	34bdd	3,000	Larick Farms, Inc.	1957	1,619	8 to 6	Kdmc, Kdlic	T, E	D, S, Irr	183R	47	259.4	5,865	6-20-61	A40; B2; Dr; EL; B11-7; L; Tch389
C5-68-															
1	1ecdd	50	J. Myer	1957	29R	21	Qp		M	80R	7	7.3	5,410	4-10-62	B15; GEL; L; P69-29; U(1961-62); WL(3-26-57) 8.6; WL(2-19-62) 6.9
2	1eddb	350	do.		1,104R	6 to 4	Kdmc, Kdlic		IrrL	F100R			5,423	1-26-57	Dr
2	1dbad	2,240	R. Edwards	1956	1,014R	6 to 4	Kdmc	S, E	IrrL	B55R	106	100	5,480	6-16-56	DL; Dr; EL; Tch300
2	1dbbb	2,550	L. Shulman	1959	1,191R	6 to 4	Kdmc, Kdlic		IrrL	50R		141.6	5,475	10-8-59	B40; DL; EL; H7-5; L; Tch699-915, 1,084-1,191
2	1dbbd	2,060	C. Glascock, Jr.	1956	856R	8 to 5	Kdmc		IrrL	10R			5,480		DL; Dr; Tch694-856
2	1decd	320	F. Manning, Jr.	1956	1,150R	6	Kdmc, Kdlic	S, E	D, IrrL	40R			5,430		DL; Dr; EL; Tch1,096-1,120
1	1ddca	650	C. Sommer	1958	28R	18	Qp		S, E	IrrL	30R	3.3	5,435	4-10-62	B10; DL; Dr; GEL; B36; P410-24; WL(11-8-59) 5.2
2	2aabc	4,640	R. Manning	1946	1,026		Kdmc	T, E	D, Irr				5,435		Dr; EL; P2766-770, 780-785, 790-795, 820-825
2	2aadd	4,180	I. Krick	1955	1,051M	6 to 4	Kdmc	T, E	D	820R	79	86	5,440	3--55	DL; Dr

Table 2.--Records of selected wells and springs--Continued

Place number	Location	Map distance north-south (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet/hour)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
2	C5-58-2abab	5,140	Country Homes Land Co.	1923	1,231R	10 to 3	Kmac, Kalc	T.E	PS	F108R	..	..	5,420	1923	DL, Dc
2	2acab	3,100	A. Rydstrom	1940	1,797R	..	Kmac, Kalc	T.E	D, IrrL	P50R	..	..	5,405	1940	AS, B20; Dr, L. Flowed 20 gpm at 970 feet
2	2acab2	3,050	.. do. ..	..	800	..	Tkdu, Kmac	Cyl, E	D, IrrL	..	..	..	5,403	..	Dr, Wg
2	2adad	3,370	J. Maitland	1953	1,395R	6 to 4	Kmac, Kalc	T.E	D	..	..	120P	5,435	6-3-57	DL, Dc
2	2adad3	2,790	Chiam	..	1,125R	..	Kmac, Kalc	T.E	D	30R	..	..	5,425	..	DL, Dc
2	2adad4	4,030	J. Stone	..	1,300R	..	Kmac, Kalc	T.E	M	35R	..	..	5,413	6-10-56	DL, Dc, U(1961)
2	2bbab	5,230	Omnes Dairy	1951	860R	6 to 4	Kmac	T.E	B, Dy	B16R	50	..	5,368	1951	DL, Dc, Wg
1	2bdeb	3,200	Cherry Hills Country Club	1955	39R	48	Qp, Qb	T.E	Irr	250R	..	..	5,342	2-7-62	A165 (with 6 wells); B39; B3; D; Su
1	2bdec	2,900	.. do. ..	1955	41R	48	Qp, Qb	T.E	Irr	250R	..	..	5,345	2-7-62	B41; D; S; Su
1	2cad	2,100	.. do. ..	1954	30R	48	Qp, Qb	C.E	Irr	197M	9	..	5,357	9-4-54	B30; D; DL; Su
2	2cbdc	1,470	W. Robinson	1951	429R	..	Tkdu	T.E	D	15R	..	..	5,375	..	Dr
2	2ccac	870	R. Martin	1932	1,030R	10 to 4	Kmac, Kalc	..	TW	..	..	..	..	..	DL, Dc; SL; WS. Later deepened to 1,720 feet; see ccac2
2	2ccac2	870	.. do. ..	1932	1,728R	10 to 4	Klb, Klc, Kfm	S.E	Irr	150R	..	..	5,390	1955	A10; B35; Dr, L; OH(1,512-1,720); SL. Flowed 250 gpm in 1932
2	2dadc	1,450	Cherry Hills Country Club	1940	1,622R	10 to 6	Klb, Klc, Kfm	S.E	D, SW	90R	..	..	5,411	..	DL, Dc
1	2dbca	1,820	.. do. ..	1934	27R	48	Qp, Qb	C.E	Irr	..	..	7.9	5,352	4-10-62	B27; B3; D; L; Su; ML(2-7-62); 2. Battery of 3 wells pumps 300 gpm
1	2dbca2	1,850	.. do. ..	1934	27R	48	Qp, Qb	C.E	Irr	..	..	..	5,352	1956	D; Su
1	2dcdb	5,120	.. do. ..	1955	26R	48	Qp, Qb	T.E	Irr	278R	..	..	5,368	2-7-62	B26; L; Su; ML(1956) 26
1	3aba	4,530	F. Pearson	1955	36R	4	Ob, Ol	J.E	IrrL, Ot	..	..	27.3	5,315	4-9-62	Dr, L; P35-56
1	4adb	4,530	O. Beam	1955	36R	6	Ob, Ol	J.E	IrrL, Ot	25R	10	1/2	5,305	8-25-58	Dr
1	4adb2	4,450	F. Beam	..	30R	5	Ob, Ol	J.E	D, Ot	..	..	..	..	4-9-62	Dr
1	4adb2	4,420	H. Gomer	..	45R	5	Ob, Ol	J.E	D	..	..	..	5,285	8-15-56	Dr
2	4acda	4,350	Grace Assembly Church Club	1940	70R	10	Klb, Klc, Kfm	J.E	D	<1R	14	1/2	5,285	2-23-55	B37; D; L
2	4abbb	3,050	City of Englewood	1940	1,700R	..	..	..	..	..	..	..	..	..	..
2	4abbb	5,100	H. Turk	1955	57R	5	Tkdu	N	M	P6M	..	..	5,309	7-9-58	Dr, D; WS; WS1
2	4abbb	5,100	Herbertson Sand and Gravel Co.	..	..	..	..	..	..	..	..	..	5,305	8-29-56	B40; D; DL; GE, P420-54
1	4bbbc	4,850	C. Kealiner	1955	85R	..	Qpp, Qb	C.E	Ind, Pr	400R	..	..	5,272	12-15-60	Re. Sump
1	4bdec	2,700	E. Hartner	1953	37.6	18	Qp, Qb	J.E	D	..	..	..	5,285	8-14-56	Dr
1	4cbdd	1,320	.. do. ..	1953	38R	18	Ob, Ol	T.E	Irr, Ot	800R	..	8	5,282	4-10-62	A35 (with 2 wells); B39; Dr, L; P418-39
1	4ccab	1,100	Hall Sand and Gravel Co.	..	..	..	..	..	..	..	..	..	5,290	4-10-62	Dr
1	4cccd	100	Denver Water Board	1955	22R	12 x 12	Qb	C.E	Ind, Pr	2,000R	..	..	5,285	11-8-59	..
1	4ccdc	100	.. do. ..	1955	39R	24	Ob, Ol	T.E	PS, E	828M	..	..	5,289.1	4-29-55	B45; DL; Dr, GE; U(1960)
1	4ccdc2	100	.. do. ..	1955	47R	6	Ob, Ol	T.E	TW	74M	6.8	2 1/2	5,290.0	4-29-55	AT; B45; Dr, L
1	4dbdc	1,620	D. Dhority	1955	33R	24	Ob, Ol	T.E	PS, E	692M	..	..	5,290.0	4-29-55	B42; DL; Dr, GE; U(1960)
1	4dbcc	2,280	Ajax Storage Co.	1954	57.6	5	Ob, Ol	J.E	D	5R	..	..	5,320	..	DL; Dr, P426-33
2	4ddad	900	F. Ankenman	1954	233R	6 to 4	Kdnu	J.E	D, IrrL	8R	111	..	5,315	8-21-56	B30; DL; Dr
2	5aab	5,200	A. Radliff	1957	210R	6 to 4	Kdnu	S.E	Com	B15R	50	..	5,290	7-25-57	Dr
2	5aac	4,650	.. do. ..	1959	227R	6	Kdnu	S.E	PS	15R	175	..	5,290	9-12-59	B21; DL; Dr, P4190-205
1	5aac	4,340	Colo. Central Power Co.	..	..	..	..	..	..	..	..	..	..	..	DL, Dr, P418-227
1	5aacc	4,020	.. do. ..	1954	33.3	18	Ob, Ol	T.E	Irr	628R	15	..	5,285	10-9-59	B14; DL; Dr, GE; H28; P415
1	5aada	4,320	.. do. ..	1957	29.0	18	Ob, Ol	T.E	Irr, PS	450R	17	..	5,290	10-9-59	A56 (with 5 wells); B14; DL; Dr, GE; P415
1	5aada	4,320	.. do. ..	1955	34.0	18	Ob, Ol	T.E	Irr, PS	275R	18	..	5,282	10-9-59	B33; DL; Dr, GE; H28; P415

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use Yield of (gpm) water	Drainage (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
1	CS-68-5abed	4,150	2,020 C. Dunn	1958	29.5	24	Qb,Ol	T,E	P8 100R	..	9.8	5,292	4- 9-62	A1; B2; D1 GE; H36; L; P10-32; WL(11-8-59)8.6
2	5abbb	5,230	2,350 Continental Oil Co.	1957	312R	6 to 4	Kdm	S,E	88 820R	14	52	5,305	3-21-57	B25; D1; D1 Tch132
1	5abba	3,950	2,050 C. Dunn	1959	27R	12	Qb,Ol	C,E	8W 100R	2	8	5,293	3-15-59	B27; D1; D1 P112-27
1	5adaa	3,940	270 Colo. Central Power Co.	1955	35R	18	Qb,Ol	T,E	Irr,P8 450R	19	11	5,281	3-15-55	B34; D1; D1 GE; H28; P15
1	5adba	3,940	720 .. do.	1955	35R	18	Qb,Ol	T,E	Irr,P8 450R	25	8.2	5,285	10- 9-59	B34; D1; D1 GE; H28
1	5adca	3,290	900 .. do.	1954	32.5	18	Qb,Ol	T,E	Irr,P8 400R	..	15.0	5,289	10- 9-59	B34; D1; D1
1	5edcc	320	1,850 Sheridan Union High School	..	7R	8	Qp,Ol	T,E	Irr 40R	..	..	5,390	..	A3; D1
1	5eddd	150	2,700 .. do.	1957	45R	18	Qp,Ol,Tkdu	T,E	Irr 40R	..	36	5,369	2-18-57	A3; B18; D1; GE; L; P136-45; 8
2	5dbad	2,050	1,550 Rocky Mountain Prestress Concrete Co.	1958	577R	4	Kdmc	..	Ind,B B15R	42	88	5,340	10- 8-58	B27; D1; D1 H7-51; Tch439-577; MSP
1	5dcbb	1,250	2,500 Mackstaff Bros., Inc.	1960	100R	6 to 5	Qs	J,E	88 15R	1	56	5,381	1- 9-60	B58; D1; L; P152-91; 56-51
2	6dccb	550	2,500 Colo. Dept. of Institutions	1903	698R	10 to 6	Kdmc,Kdlu	A	M	..	132.2	5,439	1- 6-60	D1; P1470-698; U(1942-60); WL(10-03)157
2	7ccad	780	4,020 F. Holmes	1956	768	8 to 6	Tkdu,Kdmc,Kdlu	S,E	D,IrrL, Ot	88.7	172.5	5,530	4-25-61	AT; H20; D1; GE; L; P1284-316; 340-500; 590-666; 715-750; 84; 81; WS
2	7ccbb	1,180	5,200 Ambrose-Williams	1951	1,080R	8 to 6	Kdmc,Kdlc	N	Ot B15R	105	182.1	5,540	4- 2-62	B30; D1; D1 L; QM
2	7cccb	580	5,100 W. Holthaus	1956	578R	6	Kdmc	S,E	IrrL B24R	80	174	5,545	5- 2-56	A1; D1; D1; D1; Tch155-375; 418-426; 454-474; 486-521; 528-548
2	7cccc	200	5,230 E. Ambrose	1947	1,670R	10 to 6	K1b,K1a	T,E	Irr 75R	..	160	5,543	7- -57	A12; B50; D1; L; WL(6-21-62)230.3; WS
2	7ccdd	100	4,040 A. Gillis	1956	550R	6 to 4	Kdmc	S,E	IrrL 13R	180	90	5,518	6-10-56	D1; D1; P1279-340; 365-550; 54; WS
1	8abad	4,750	1,500 Arepaw County	..	38.0	42	Qp,Ob,Ol	N	M 1,000R	16	4	5,289	11- 8-59	B42; D1; D1 L; P110-42
1	8abca	3,120	2,300 G. Adams	..	41.5	18	Qp,Ob,Ol	T,E	Irr 500R	..	6	5,302	11- 8-59	A40; B42; D1; D1; GE; P110-42; 8
2	8bcbb	3,470	5,200 J. Jackson	1953	494R	6 to 4	Kdmc	S,E	D,IrrL B12R	55	70	5,404.7	4- -53	B9; D1; L
1	8cada	1,660	2,810 M. McLaughlin	1958	43.5	5	Ol	M	IrrL 15R	..	24.3	5,333.0	4-10-62	D1; L; P118-43; WL(5-2-58)23.3
1	8dacc	2,300	340 E. Ausfahl	1952	16.1	48	Qp,Ob	C,E	Irr, Ot 50R	..	3.6	5,302	4-10-62	D
1	8dcba	850	1,400 A. Williams	1955	22.6	15	Qp,Ob	C,E	Irr, Ot 160M	..	4.0	5,311	4-10-62	A15; AT; D1; GE
1	8dcba	1,200	2,050 City of Englewood	1955	53R	24	Qp,Ob	T,E	P8, Ot 90R	..	13.7	5,314	4-20-59	B52; D1; D1
1	8dcba2	990	2,100 Bellevue Bowl	1958	37R	8	Ob,Ol	S,E	AC 50R	15	12	5,314	6-30-58	D1; D1; P115-37; Me
1	8dcbb	750	2,130 City of Englewood	1955	50R	24	Qp,Ob,Ol	T,E	P8, Ot 750R	5	9.8	5,314	7- 8-57	B50; D1; D1; P110-50
1	8dccb	400	2,530 .. do.	1955	50R	24	Qp,Ob,Ol	T,E	P8, Ot 750R	5	8.6	5,316	5-26-59	B49; D1; D1; P110-50
1	8dcda	580	1,180 A. Williams	1955	25R	16	Qp,Ob	T,E	Irr, Ot 300R	7	5.0	5,310	4-10-62	D1; D1; MSP
1	9abba	5,180	2,180 J. Morris	1953	43R	6	Qb,Ol	J,E	IrrL B10R	13	2	5,320	8- 4-53	B38; D1; GE; L; P123-43
1	9acbb	3,120	2,380 R. Cummings	1955	52R	6	Ob,Ol	M	Irr, Ot 8R	4	30.6	5,338	4-10-62	B49; D1; D1; Tch12-48; U(1956)
1	9bbba	5,080	4,250 Western Paving Construction Co.	1954	40.0	18	Ob,Ol	T,E	Irr 600R	..	12.4	5,294.8	11- 8-59	A15; B39; D1; D1; U(1958)
1	9cacc	2,020	3,000 D. Roemer	1955	23.8	24	Ob,Ol	M	Irr 500R	3	5	5,315	10- 9-59	D1; P110-25; U(1959)
1	9cadc	1,520	3,300 J. Hazlett	..	25R	48	Qs,Ol	C,E	Ind 100R	..	..	5,310	..	D
1	9cbba	2,520	3,980 R. Belzer	1958	40R	6	Ob,Ol	J,E	IrrL 75R	10	6	5,310	6-10-59	B16; D1; D1
1	9cbca	1,680	4,840 D. Raa	..	9.0	24	Qp,Ol	C,E	D 313R	..	3.8	5,305	10- 9-59	B11; D1; D1; GE
1	9ccbd	820	4,860 .. do.	1957	18.1	21	Qp,Ol	M	Irr 70R	14	4	5,310	10- 9-59	B18; D1; L; P13-20; U(1959)

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
2	C5-68-9cddb	500	Ready Mix Concrete Co.	1957	410R	6	Kdmc		Ind	840R	75	62	5,347	10-12-57	858; DL; Dr; Tch246-390
2	11ccad	2,200	R. Monte	1949	754R	6 to 4	Kdmc	J, E	D	12R		20	5,434	1949	838; DL; Dr; T70
2	11dbcd	1,640	Goodstein	1949	1,014R	8 to 4	Kdmc, Kdlu	S, E, D, Irr	30R	75		200	5,440	1956	848; DL; Dr; WL(3-1949)5
2	11ddad	700	W. Lorton	1930	1,000R	6 to 3	Kdmc, Kdlu		D	75R			5,455	1930	DL; Dr
2	12adad	4,750	R. Polichio	1956	800R	6 to 4	Kdlu		D	75R		423	5,415	5-24-56	816; DL; Dr; Tch685-800
2	12abdd	4,800	C. Tucker	1956	1,000R	6 to 4	Kdmc, Kdlu		D	850R	42	65	5,420	6-29-56	DL; Dr; Tch230
1	12abda	4,350	D. Thornton	1957	28R	24	Qp	C, E	Irr	60R		1.7	5,409	4-10-62	A2; B27; Dr; GE; 835; L; 848-28; WL(11-8-59)2.4
1	12bbbb	5,220	Cherry Creek School District	1957	40R	6	Qp, Qb	T, E	Irr	840R	22	1.7	5,384	4-10-62	Dr; GE; L; P215-40; WL(12-14-60)3.6
1	12bbcb	4,530	G. Stemler	1956	24.7	24	Oy, Qb	C, E	Irr	120R	10	1.0	5,385	1-17-61	820; Dr; GE; L; P25-20
2	12bdab	3,950	Carlisle-Moelbel	1954	1,136R	8 to 6	Kdmc, Kdlc		PS	50R			5,420	2- -54	82; Dr; L. Flowing well
2	12bdab2	3,850	do.	1956	1,867R	6 to 4	Klb, Kila, Kfm	T, E	PS	865R	36	34	5,420	1- -56	DL; Dr; EL
2	12ddad	980	J. Shafroth	1953	891R	6 to 4	Kdmc		D, Irr	740R			5,450	1961	89; DL; Dr; Tch716-891. Flowed 75 gpm in 1953
2	13aabd	4,940	J. Coaden	1956	953R	2	Kdmc	T, E	D	25R	25		5,480	4-30-56	DL; EL. Original flow 2 gpm; flows when not pumped
2	13abac	4,850	R. Flair	1956	800R	6	Kdlu	J, E	D	3E		76.0	5,490	9-4-59	Dr
2	13abdd	3,600	Anderson-Bieber	1956	1,192R	6 to 4	Kdmc, Kdlc		PS	72M		4.8	5,521	2-1-60	DL; Dr; EL; FD
2	13baaa	5,080	J. Elfstrom	1956	950R	6 to 4	Kdlc		D	840R	35	45	5,490	10-27-56	DL; Dr; EL; Tch696-927
2	13bdcd	2,800	R. Niedrack	1897	960R		Kdmc						5,430	6-6-57	Dr
2	13cbdb	1,950	J. Lindway	1960	879R		Kdlc	S, E		50R	35	40	5,485	7-16-60	DL; Dr; P2668-859
2	13dced	1,600	W. Stanley	1957	1,147R	6 to 4	Kdmc, Kdlc		D, Irr	F59M		461.6	5,490	6-5-57	AT; B25; Dr; EL; FD; L; Tch318; MSP
2	14dbbb	3,900	T. Savage	1954	1,128R	8 to 6	Kdmc, Kdlc	M	D	160R	200	8	5,485	10- -54	811; DL; Dr
2	15bdcc	2,750	Borgren-Stemac, Inc.	1958	778R	8 to 6	Kdlu	T, E	Ind, D, C, Irr	850R	40	50	5,420	1-30-58	852; DL; Dr; H11-7; Tch476-778; MSP
1	16baba	5,200	Colo. Central Power Co.	1955	45R	18	Ob, Ql	T, E	Irr	350R	5	35	5,345	7-14-55	844; Dr; GE; L; Lo30-45
1	17adbc	3,380	Centennial Turf Club	1955	44R	18	Qpp, Ql	C, E	Irr	400R	8	7.9	5,316.9	7-27-56	843; DL; Dr; GE; P224-44
2	17bubb	5,150	Safeway Stores, Inc.	1959	744R	6	Kdmc, Kdlc	S, E	Com	40R	48	27	5,378	6-20-59	DL; Dr; MSP
1	17caaa	2,580	Town of Littleton	1955	41.9	24	Qpp, Ql	T, E	PS	900M	18	8.3	5,316	7-27-56	842; Dr; GE; H40; L; P223-42; MS
1	17caab	2,580	do.	1955	43.6	40 to 24	Qpp, Ql	T, E	PS	1,000M	6	7.9	5,315	7-27-56	DL; Dr; GE; P215-43; WL(2-1955)6
1	17caac	2,150	do.	1955	42.0	40 to 24	Qpp, Ql	T, E	PS	1,200M	28	7.9	5,317	7-27-56	843; DL; Dr; GE; H40; P223-41
1	17cdaa	1,160	do.	1952	42.0	24	Qpp, Ql	T, E	PS	750M	30	7.9	5,316.7	7-27-56	843; DL; Dr; FD; GE; P223-41; MS; WSR
1	17cdad	880	E. Watson	1951	28.7	48 to 6	Qpp, Ql	N	Irr, Ot			2.8	5,320.7	4-10-62	Dr; U(1957)
1	17cdad2	850	Town of Littleton	1951	43.6	18	Qpp, Ql	T, E	PS	800M	28	7.9	5,317	7-27-56	833; Dr; GE; L; P230; MS
1	17cdbe	1,280	T. Koldewey	1942	22.7	48	Qpp, Ql	T, E	Irr, Ot			3.3	5,322	4-20-59	Dr; U(1957)
1	17cdcb	550	E. Watson	1942	20.7	6	Qpp, Ql	N	Ot			5.4	5,323.6	4-10-62	D
1	17dbba	2,630	Town of Littleton	1955	37.9	24	Qpp, Ql	T, E	PS	700M	18	9.4	5,315	7-27-56	843; Dr; GE; H40; L; P215-43; MS
1	17dbcd	1,380	do.	1942	30R	48	Qpp, Ql	T, E	PS, E	500R		11	5,318	10-11-60	D
1	17dbcd2	1,400	do.	1942	30R	48	Qpp, Ql	T, E	PS, E	1,000	17	11	5,318	10-11-60	D
2	17dcda	500	do.	1895	712R	6	Kdmc, Kdlu	J, E	PS, Ind	30R		48P	5,332	10-11-60	Dr; L

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift and power	Use of water	Yield (gpm)	Drawdown (feet/hour)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
Ct-58-															
2	18acda	2,810	R. Buchanan	1956	713R	6 to 4	Kmac,Kdlu	S,E	D,Irr,L	812R	120	115	5,486	4-21-56	Dr; EL; FDI; L
2	18baba	5,150	F. Rogers	1956	580R	6 to 4	Kmac	S,E	Irr,L	88R	80	70	5,510	4-18-56	A.5; B14; DL; Dr; F2200-580
2	18cbca	2,300	L. King	1957	593	6	Kmac	N	D	835R	44	88	5,470	1-22-57	DL; Dr; EL; Tchn240
2	19cdca	520	Town of Littleton	1956	511R	10 to 7	Kmac,Kdlc	T,E	PS	120R	212	30.2	5,418	6-21-57	B12; Dr; EL; L; Tchn161, WS
1	20abcc	4,060	Champion Nursery		9.5	36	Qpp	C,E	Irr	100R		2.9	5,324.1	4-10-62	A2; Dr; ML(3-24-59)3.5
1	20baca	4,550	J. Buckner		8.8	36	Qpp	C,E	S	200R		5.8	5,226.1	4-30-59	D
1	20bacc	4,200	A. Tolan	1956	10.8	24	Qpp	C,E	Irr	88R		8.5P	5,327.3	4-30-59	D
1	20badc	4,580	Town of Littleton	1952	30R	48	Qpp,Ql	T,E	PS	1,000R	20	7	5,321	10-11-60	D
1	20bcda	3,230	Columbine Country Club	1955	48R	24	Qpp,Ql	T,E	Irr	1,460	15	3	5,332.0	3-22-55	DL; Dr; GE; H40; P66-4W
1	20cbad	2,300	do.	1955	54R	24	Qpp,Ql	T,E	Irr, Ot	1,960R	18	3	5,339.2	4-18-57	A121(With 5 wells); B52; DL; Dr; GE; H40; P66-58
1	20cbbb	2,320	do.	1955	60R	24	Qpp,Ql	T,E	Irr	1,375R	14	3	5,347.0	8-22-56	860; DL; Dr; GE; H40; P69-60
1	20cbdd	1,580	do.	1955	60R	24	Qpp,Ql	T,E	Irr, Ot	1,292	26	3	5,336.8	4-10-62	847; DL; Dr; GE; H40; P66-60; U(1956-62)
1	20ccab	1,080	do.	1955	52R	24	Qpp,Ql	N	Irr, O	1,375	14	3	5,344.0	10-26-59	DL; Dr; GE; H40; P69-52; ML(8-22-56)
1	20cccc	220	do.	1955	64R	24	Qp,Ql	T,E	Irr, D	1,225R	17	3	5,351.5	8-29-56	DL; Dr; GE; H40; P612-48
1	20dcab	1,150	A. Heineman	1955	5R		Qb	T,E	Irr, D	269R		16	5,451	2- -55	D
2	21abab	4,670	Town of Littleton	1955	1,826R	8 to 6	Klb,Kla,Kfm	S,E	PS	100R	36	66	5,451	2- -55	D
2	21adca	3,200	Carmelite Monastery		810R	6 to 4	Kmac	Cyl, R	D	15R		20.1	5,451	2- -55	D
1	21adcb	1,340	Highline Canal Co.		29.7	6	Qs						5,503	2- -55	D
2	24ddab	1,050	Chapel Hill Cemetery	1959	1,450R	12	Kmac,Kdlc	T,E	Irr	812R	35	25	5,630	3-30-59	A44; Dr; L. Tchn918-1,418
2	24ddac	980	do.		2,100R	8	Klb,Kla,Kfm	T,E	Irr	200R		223.2	5,630	3-17-59	A44; Dr
2	27accd	200	Ohio Oil Co.	1955	99R		Kmac,Kdlu	S,E	Ind, C	250R	328	103.0	5,610	10- -59	B13; Dr; WS
2	27accd2	170	do.	1955	1,910R	8 to 6	Klb,Kla,Kfm	S,E	Ind, P, Irr,L	159R	266	20	5,610	10- -59	A20; AT; B13; Dr; EL; L; P61, 560-1,860; ML(5-2-55)+15.9; WS
2	28acab	4,470	Town of Littleton	1952	1,948R	8 to 6	Klb,Kla,Kfm	S,E	PS	400R	344	48	5,515	1956	DL; Dr; FDI; P61, 370-1,464, 1,495-1,612, 1,680-1,715, 1,797-1,808; WS; Wsr. Flowing 1952
2	28bccc	2,900	W. Deems		693R	6	Tkdu	S,E	D	40R			5,470		DL; Dr
2	29abbc	4,700	Crowley Bros.	1952	400R	6 to 4	Tkdu	T,E	D, G, B	10R			5,345.0		D
1	29abbc2	4,700	do.	1953	12.6	48	Qpp	C,E	G, AC	100R		7.8	5,345.0	4-12-59	D
1	29abdc	4,050	R. Miller	1954	8R		Ql	C,E	Irr			3.8	5,353.2	4-13-59	M.5; D. Sump
1	29baad	4,800	A. Waller		6.0		Qpp	C,E	Irr			4.4	5,341.6	7-17-59	D. Sump
1	29bada	4,500	do.		11.0	48	Qpp	C,E	Irr	150R		1.7	5,337.9	7-17-59	Dr
2	29bcdb	3,100	L. Olsen		251R		Tkdu,Kdlu		D	P. 5R		+3.4	5,341	8-29-56	AT; Dr; T53
1	29cdca	500	K. Enser		12R		Qp		Irr				5,350		Spring-fed sump
1	30abab	4,780	L. Morris		68.2	18	Qp,Ql	T,E	Irr, Ot	700R		30.3	5,367.5	4-12-62	A60; Dr; Su
1	30adad	3,520	R. Olsen	1955	11.8	48	Qpp	T,G	Irr, Ot	200R		1.8	5,342.7	4-12-62	A4; D
1	31aabb	5,130	Town of Littleton	1959	56R	24	Ql	T,E	PS	1,025R	22	13	5,358	8-22-59	B56; Dr; GE; H40; L; P626-50
1	31abaa	5,250	do.	1959	55R	24	Ql	T,E	PS	1,020R	28	14.2	5,360	4-12-62	B55; DL; Dr; GE; H40; P625-55; ML(8-16-59)
1	31abaa2	5,010	do.	1959	54R	24	Ql	T,E	PS	1,051R	27	14	5,359	8- -2-60	B54; DL; Dr; GE; H40; P624-54

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
C5-68-															
2	31abba	5,240	C.R.T., Inc.	1959	452R	6	Kdmc, Kd1c	T, E	PS	855R	150	..	5,378	4-13-59	840; Dr; H16; L; Tchl 152-452
1	31adad	3,580	K. Enser.	1955	39R	24	Qpp, Q1	M	Irr, Ot	950R	11	3	5,360.9	4-12-62	837; Dr; L; P21-39
1	31adca	3,100	do.	1955	39R	24	Qpp, Q1	M	Irr	538R	6	3	5,364.0	4-12-62	837; Dr; L; P21-39
1	31adbb	3,050	do.	1955	36R	24	Qpp, Q1	M	Irr	1,680R	19	3	5,364.9	4-12-62	836; Dr; L; P18-36; WL(3-23-59) 4.0
1	31caad	1,400	So. Side Gravel Co.	1955	14R	12	Qpp, Q1	..	Ind, Cons	10R	..	7	5,405	5-28-55	810; Dr; L; GE; P25-10; Destroyed in 1959
1	31daab	2,630	K. Enser.	1955	34R	24	Qpp, Q1	T, E	Irr, Ot	1,290R	21	3	5,367.4	4-12-62	830; Dr; L; P216-34
1	31daac	2,120	do.	1955	34R	24	Qpp, Q1	T, E	Irr, Ot	1,350R	26	3	5,370.8	4-12-62	834; Dr; L; GE; P216-34
1	31daba	2,630	do.	1955	40R	24	Qpp, Q1	M	Irr	1,980R	16	3	5,366.0	3-23-59	840; Dr; L; GE; P216-34
1	31dadb	1,580	do.	1955	27R	24	Qpp, Q1	M	Irr	485R	..	2	5,370.0	4-20-55	827; Dr; L; P29-27
1	31dadd	180	P. Kiewit & Sons Co.	1956	42.5	24	Qpp, Q1	M	Ind	1,200R	7	6	5,369.2	4-13-59	837; Dr; L; GE; P216-34
1	32ccba	1,300	Mann Construction Co.	1956	21.5	24	Qp, Qb, Q1	C, E	Irr	120R	2	2	5,372.2	4-12-62	P210-45; U(1958) P210-45; Dr; L; P210-20; WL(4-15-59) 5.0
1	32cccd	20	E. Jordan	1870	70R	40 x 40	Qb, Q1	T, E	Com, Sw Irr, D	300R	..	..	5,385	..	A3.5; DO
C5-69-															
2	31abcc	4,100	R. Bober.	1955	280R	6	Kdmc	S, E	..	810R	215	2	5,430	6-10-55	819; Dr; L; Tchl 125-260
2	32abcc	4,050	J. Wiebenson.	1954	915R	6 to 4	Kdmc, Kd1c	S, E	D, AC, G	820R	30	8	5,500	10-8-54	A.3; 856; Dr; L; P2528-633; 680-700, 830-850
2	32cdcd	2,850	State of Colorado	1915	735R	8	Kdmc, Kd1c	T, E	D, Irr	55R	..	..	5,555	8-1-61	85; Dr; L; U(1961); Mountain View Girls' School
2	31addd	2,740	Federal Correctional Institution	1893	1,400R	..	K1b, K1c, K1d	Cyl, E	Irr	40R	300	..	5,525	1950	Dr. Flowed 176 gpm in 1893
1	32adcd	4,140	Denver Water Board	..	11.1	..	Qp	C, E	D	..	..	..	5,550	4-12-62	D; Dr; WL(2-11-59) 6.2MS
1	32addd	4,740	L. Shipley	..	90R	..	Qp, Q1, Ks	J, E	Com	10R	..	..	5,560	1-17-59	814; Dr; L; TH; WS
1	32bdc	2,940	G. Pallaro	..	10.5	..	Qp, Q1, Ks	M	..	..	..	..	5,675	4-12-62	D
1	32bab	2,400	A. Bevane	1949	79R	..	Qp, Q1, Ks	J, E	D	..	..	..	5,605	3-16-59	D
2	32dcca	550	Pallaro	1935	9,585R	..	Ks	..	Oil	..	..	..	5,660.2	..	EL. Brackish water
2	32ccdd	2,750	Panuco Oil and Transportation Co.	1923	2,700R	..	Kp, Kd	..	Oil, S	F	..	..	5,750	..	Dr. Dr. Penetrated sandstone unit of Pierre Shale at 1,565 feet
2	32baca	4,450	Lillie Pallaro	..	9,649R	..	..	..	Oil	..	..	..	5,822	..	Dr; Dr; SL. Produced oil. Penetrated faults and overturned section of Cretaceous rocks. South Platte formation at 9,440 contains saline water; higher sand beds contain brackish to saline water
C5-70-															
2	32bdc	3,970	Mt. Morrison Asphalt Oil and Gas Co.	1913	1,470R	..	Ks	..	Oil, S	..	..	..	5,790	..	Dr. Dr. Flowed at 1,345 feet
2	32bdb	3,100	L. Mann	1955	109R	..	Ks	..	S	..	..	..	5,830	4-20-62	Dr; EL
2	32abcb	1,900	A. Coote	..	566	..	Ks	..	..	..	..	..	5,807	..	Dr; WS
1	32abdb	4,930	A. Weselman	1905	28R	..	Op, Kt	Cyl, E	D	..	..	..	5,635	..	D
1	32abdd	4,010	J. Noble	1954	23R	48	Op	J, E	D, S	..	..	..	5,650	4-12-62	D; WL(4-57) 12. Dry in summer, 1955

Table 2.--Records of selected wells and borings--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
	C5-69-													
1	8abed2	4,000	J. Noble	1955	100R	6 to 5	Op, Qe, Kp	J, E	D, S	50	2	5,650	4-12-62	B23; Dr; L; Pfl15-100; TH; WL(3-16-59)10.3
2	8addd	2,700	Not known	1955	220R		Kc		D			5,655	3-16-59	Dr; WS
1	8bcaa	3,450	R. Savana	1950	50R	5	Op, Ql	J, E			11	5,615	2-7-59	B34; Dr; FD; WS
1	8bbba	4,740	C. Anderson	1943	24R	6 to 4	Op, Qe	Cyl, E	D		12	5,615	4-12-57	B40; Dr; L; Tch60-80,
2	9bbbb	5,060	do.	1955	160R	6 to 4	Klb	J, E	D, S	90	3	5,640	115-160	Dr; L; Pfl179-246; WS
2	9adcc	200	C. Stohlman	1957	246R	6	Kalc	S, E	IrrL	50	2	5,680	3-7-57	B25; Dr; L; Pfl179-246; WS
2	11abbb	5,000	K. Steinberg	1959	485R	6 to 4	Kdmc, Kalc	S, E	D, IrrL	10R	25	5,564	6-25-59	A, 75; Dr; FD; H7-5; L; Tch255-415
1	11acbc	3,620	W. Spuhler	1958	43R	5	Op, Qe	C, E	IrrL		.9	5,532	4-12-62	B12; Dr; GE; H12; L; Pfl1-43; WL(6-14-61) 1.0
2	16aaaa	5,200	L. Overmeyer	1958	257R	6 to 5	Kdmc	S, E	D, IrrL	20R	54	5,665	10-23-59	B33; Dr; FD; GE; H14; L; Pfl54-257; WL(4-58)114
2	16aaab	5,160	L. Bonen	1955	202R	6	Kdmc	S, E	D	2R	50	5,670	12-24-60	Dr; EL; WL(1955)87
2	16aada	4,380	M. Clubb	1956	370R	6	Kdmc, Kallu		D	B16R	20	5,650	7-5-56	B23; Dr; L; Or
2	16acaa	3,950	J. Schjeldrup	1954	180R		Kalc	S, E	D	15R		5,663	6-30-54	Dr; WS
2	17abba	5,250	C. Allen	1945	36R	84	Kp	C, E	D, S	6R		5,735	1-5-61	D
2	17cbbb	2,600	G. Hancock	1922	16R	48	Kp	Cyl, R	S	1E		5,835	12-14-60	D, Dry 1954-56
2	18aaaa	5,180	A. Coors III	1954	598R	6	Ka	S, E	D, S, Irr	30R		5,798	2-58	A30; B8; Dr; L; Su
2	18bbcc	4,260	do.	1956	900	8 to 6	P1	C, E	D, Ot	F6M		5,865.0	7-31-57	At; B18; Dr; EL; GR; L; Or(446-900); Sai
2	18dccb	500	D. Mabster	1957	354	7	Ka	S, E	D, S, IrrL	6M	44	5,934.8	6-27-57	D; Dr; EL; FD; GR; L; S; Sa; WS; Wsr. Well deepened from 302 feet
2	19adbc	3,450	K. Axom	1958	906	6 to 4	Ka, Kly	J, E	D, S	30R	22	5,928.0	6-30-58	Dr; EL; H7-5; Tch640-730, 860-905
2	21abaa	5,220	K. Murphy	1961	315R		Klu	M				5,715		B9; Dr; L; Dry
2	21ddac	980	R. Spykstra	1950	100R	6	Tkd, Kl	J, E	D		35	5,690	7-31-61	Dr; FD
2	21ddba	1,050	do.		100R	6	Tkd, Kl	Cyl, E	S	5E		5,691	7-31-61	Dr
2	22abba	4,860	R. Straum, Jr.	1954	405R	8 to 6	Kdmc, Kalc	S, E	D, IrrL	20R		5,580	1954	B22; Dr; L; WS
2	22aabc	4,880	T. Francis		125R		Tkd, Kl					5,570		Inadequate for domestic supply
2	22abaa	5,030	B. Lockhart	1951	460R	6 to 4	Kdmc, Kalc, Kl	S, E	D	10R	55	5,592	1951	B14; Dr; F2; L
2	22abab	5,100	M. Van Der Heul	1955	405R	5	Kdmc, Kalc, Kl	J, E	D, IrrL	B10R	40	5,602	10-1-55	B30; DL; Dr; Tch205-405
2	22abba	5,000	J. Champion	1952	402R	6 to 4	Kdmc, Kalc, Kl	S, E	D, IrrL	30R	40	5,603	10-23-59	Dr; F2; L; WL(6-1955)90
2	22baaa	5,230	D. Blackburn	1955	410R	5	Kdmc, Kalc, Kl	S, E	D, IrrL	B10R	45	5,620	10-1-55	B5; Dr; L; Tch210-410
2	22ccac	800	R. Spykstra	1955	108R		Klu	M	D		50	5,670	1-31-55	B11; Dr; L; Pfl24-30, 59-67; U(1961)
2	24aabc	4,820	J. Kelao	1959	388R	6 to 4	Kdmc, Kalc	S, E	D	15R	17	5,495	10-23-59	Dr; Dr; Pfl302-388
2	24abab	5,080	R. Barkdale	1957	473	4	Kdmc, Kalc		D	B15R	18	5,490	2-8-57	B22; Dr; EL; L; Tch184
2	25aabc	4,750	B. Duboc	1955	1,580R	8 to 6	Klb	N	Ot	130R	410	5,450	4-20-62	B10; Dr; EL; FD; F2; L; Wsr. Flowed 10 gpm saline water and yielded gas to flare at 1,130 feet. Plugged at 1,190 feet. Water rust-colored in winter
2	26bbbb	5,200	F. Brock	1955	160R	6 to 4	Kdmc	Cyl, E	D, IrrL	7R	50	5,540	4-9-55	B10; Dr; L; Tch100-160. Water rust-colored in winter
2	26ddad	950	S. Stene	1950	1,705R	8 to 6	Klb, Kila, Kfm	M	N		111.6	5,556	6-29-61	Dr; F2. Flowed; yielded gas to flare in 1950. Salty water kills vegetation



Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use Yield of water	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks	
2	C5-69-27baaa	5,160	J. Wasselman	1956	390R	6 to 4	Kmc, Klu	S, E	D, IrrL	810R	72	10	104	5,615	820; Dr; FD; FZ; L; Schl 67-390. Water rusts pipes and has a bad odor
2	3aaabb	5,250	B. Koran	1957	320R	4	Kmc	T, E	Irr	45R	.	.	61	5,450	11-30-57 EL; GRL
1	C5-70-1aabc	4,910	D. Taylor	.	6R	.	Qp	J, E	D	.	.	.	3	5,642	3-19-59 D
1	1abba	4,970	W. Dehoss	.	15R	.	Qp, Ql	P, E	D	.	.	.	6	5,660	3-17-59 Dr
2	1accc	1,420	W. Pallaozo	.	100R	.	Ka	.	S	Flom	.	.	.	5,850	3-30-59 Dr; FD; WS
-	6ccab	1,280	F. Bruah	1959	202R	6	PC	S, E	D	2R	.	.	75	7,595	9-5-59 L; OH(16-202); SG. Water from fractures 126-130 feet and 194-200 feet
-	7acab	4,480	Indian Hills Water District	1957	20R	48	Qp, PC	J, E	P, S, E	21R	.	.	10	7,255	5-5-61 Gr; Gy. Three gravel-filled trenches extend radially up-slope
-	7acab2	4,500	do.	1957	83R	6	PC	J, E	P, S	8R	.	.	12	7,270	5-5-61 Dr; GH; WS
-	7acab3	4,550	do.	1957	30R	48	Qp, PC	J, E	P, S	30R	.	.	.0	7,260	5-5-61 Gr. Spring converted to well
-	7abba	4,600	do.	1957	143R	5	PC	M	N	<1	.	.	16.8	7,275	5-5-61 Gr; U(1961)
-	7abba2	4,500	do.	1957	50R	6	PC	J, E	P, S	6R	.	.	12	7,270	5-5-61 Gr; Dr
-	7baad	4,830	Indian Hills Fire Dept.	1958	50R	.	PC	J, E	D, Fire	20R	.	1 1/2	27.0	7,340	DL; Gr; H7-5; F35-50
-	7bbbd	4,900	C. Jones	1959	109R	6 to 5	PC	S, E	D, IrrL	5R	<91	.	27.0	7,450	5-11-59 Dr; GH, H7-5; L; WL(spring, 1960) 22. Water from fractures at 18 feet
2	11dbcb	1,080	R. Starmer	1960	703R	7	Ff	.	Com	F13M	.	.	+95.2	6,190	9-23-60 Dr; FD; L; OH(55-703); S; SL; WS
2	14baba	5,150	O. Sanger	1951	Sprng	.	PC	.	D, S	FCLR	.	.	.	6,260	9-23-60 FD; WS
2	15cbcb	3,920	Dodaon and Stark	.	10R	36	PC	C, E	D, IrrL	5R	9	.	.5	6,560	1-18-61 D; FD; SG. Water from fractures at 7 feet
2	16acbb	3,270	D. Hauptman	1959	313R	5	PC	S, E	D	3E	.	.	74	7,010	3-22-59 M6; Dr; FD; L; OH(11-313); SG. Water from fractures at 86-89 feet and 268-313 feet
2	16bdcc	2,750	Indian Hills Water District	1942	20R	120x144 to 96x96	PC	.	C, E	20R	8	15	3	6,820	5-5-61 Dr; SG
2	17adbd	3,370	M. Madrie	1957	62R	.	Qp, PC	J, E	D	20R	.	.	.	6,960	B10; Dr; L; OH(42-62); SG
2	21acda	3,300	J. Fields	1959	308R	6	PC	S, E	D	<1R	20	.	260	6,930	8-29-59 B10; Dr; FD; L; OH(13-108); SG. Water from fractured quartz veins at 155, 245, 285, and 285 feet
2	21adba	3,290	E. Clark	1935	12R	48	Qp, PC	P, E	D, S, Com	10R	1	72	3.4	6,810	4-12-62 D; FD; SG; WL(5-6-61) 3.2
2	21adbb	3,230	do.	1955	87R	8 to 6	PC	S, E	Com	2R	.	.	4.6	6,815	5-6-61 Dr; FD; SG
2	21daac	2,150	P. Hoffover	1960	52R	8	PC	.	D	10R	.	.	42	6,840	7-12-60 B15; Dr; FZ; L; F50-52; SG. Water from decomposed rock at 50 feet
2	22cbbc	2,250	A. Sedgley	1958	210R	5	PC	S, E	D	<1R	.	.	23	6,860	10-4-58 B30; Dr; L; SG
1	22ccca	600	L. Granzeilla	1960	50R	6 to 4	Qp, Ql, PC	J, E	D	100R	.	.	20	6,870	9-1-60 B20; DL; Dr; FD; FZ; F32-50; SG

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north (feet)	Map distance west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet) above m.s.l.	Date of measurement	Remarks
<b>C5-70-</b>																
2	24bda	2,980	2,730	L. Max.	1957	772	8	Pf	..	Oil, B	80.5M	..	..	6,122.0	2-12-57	Dr; EL; GR; MS
2	29dbba	2,600	2,000	G. Garrett.	1957	468	6	PC	..	D, IrrL	8R	..	15	7,240	11-14-57	Dr; EL; GR; L; OH(13-46)
2	33dadb	1,700	350	H. Jeffere.	1957	518	6 to 5	PC	J, E	D	8JR	27	3	7,210	4-23-57	Dr; EL; GR; L; Pf15-24, 30-50
1	34bbad	4,630	4,220	Muchabee Estate	1957	338	6	Qp, PC	P, E	D	8M	8	1/6	6,990	4-12-62	Dr; EL; GR; L; OH(10-33), Pf10-10, 5G; ML(5-2-61)2.5
2	34cbdc	1,540	4,610	C. Mill	..	728	4	PC	J, E	D	<1R	..	..	7,120	..	Dr; EL; GR; Water from fracture at 50 feet
2	34cbdc2	1,570	4,500	.. do.	1959	438	6	PC	M	D	..	..	17.0	7,135	5- 6-61	Dr; EL; GR; L; OH(22-433); 5G
2	34cbdc3	1,540	4,560	.. do.	1959	138	6 to 5	PC	S, E	D	<1R	..	13	7,130	6- 9-59	Dr; EL; GR; L; OH(44-133); 5G. Water from fracture at 124 feet
<b>C5-71-</b>																
-	11ccdb	650	4,350	C. Angelo	1923	1308	72 to 6	PC	..	D	<1	..	60	7,480	6-21-60	F2; 80; MS
-	16bada	4,350	2,800	Propat.	1959	838	6	PC	..	D	3R	..	13.6	7,355.2	9-22-59	DL; GR; Pf28-65
-	16bada2	4,420	2,700	C. Savage	1957	838	5	PC	..	D	4R	55	14	7,486.4	9-22-59	DL; GR; Pf70-85
-	16badb	4,500	3,180	Young	..	1908	..	PC	Cyl, E	D	..	..	38.3	7,411.0	9-22-59	DL; GR; Pf70-85
-	16badb2	4,350	3,050	E. Porter	..	..	..	PC	..	D	..	..	78.8	7,400.0	9-22-59	DL; GR
-	16badc	4,120	3,050	Goins	..	2618	..	PC	..	D	..	..	+35	7,349.2	9-22-59	Gr
-	17acbb	3,000	2,500	R. Lewis	1958	Spring	7	PC	..	D	8R	..	..	7,920	..	DL; FDI Gr
-	17acbb2	3,050	2,400	.. do.	..	..	..	PC	..	..	..	..	..	7,920	..	DL; Gr
<b>C5-65-</b>																
2	4cdcb	350	3,950	C. Gartrell	1957	3178	4	Tkdu	J, E	D	12R	100	88	6,240	6- -61	Dr; EL; L; Pf160-180, 277-317
2	64ddd	120	100	K. Edwards	1957	152	6 to 4	Tkdu	S, E	D, IrrL	815R	10	50.3	6,100	6-25-61	Dr; L; Tchn90-100, 125-140; ML(2-7-1957) 70
2	9bacb	4,530	3,880	C. Gartrell	1956	3328	4	Tkdu	J, E	D, B	815R	56	114.3	6,215	6-25-61	Dr; L; Tchn184; ML(9-16-56)110
2	16bcda	2,980	4,200	.. do.	1960	3268	4	Tkdu	Cyl, M	S	9R	..	250	6,350	6-25-61	Dr; L; Tchn236-326
2	18adaa	3,820	150	L. Barron	1958	409	5	Tkdu	S, E	D	20R	60	225.8	6,295	6-25-61	Dr; EL; H7; L; Pf323-391; S; SL
2	18cdcc	300	3,080	R. Baker	1961	2508	6 to 4	Tkdu	S, E	D, B	830R	32	88	6,145	3- 3-61	DL; Dr; H7-5; Tchn88-248
2	18cddd	150	2,930	.. do.	1958	2008	6	Tkdu	S, E	D, IrrL	12R	40	57	6,140	5- 6-58	Dr; H7; L; Tchn73-100, 140-190
2	32dabd	2,220	920	P. Calahan	1960	3238	6 to 4	Tkdu	S, E	D	12R	10	200	6,418	4-28-60	Dr; FDI; H7-5; L; Tchn200-323
2	32dccb	500	2,620	R. Hampton	1960	3118	6 to 4	Tkdu	S, E	D	810R	13	197	6,415	6- 1-60	Dr; H8-5; L; Pf200-311
<b>C5-66-</b>																
1	4bcab	1,850	4,600	J. Archer	1952	598	24	Ql	T, E	Irr	600M	12	..	5,224.0	..	A50; Dr
1	4bcda	3,150	3,970	L. Dixon	1952	598	18	Ql	T, E	Irr	600M	12	4.9	5,221.7	4-13-62	A65; Dr; ML(10-28-59) 14.6
1	4bdc	2,750	3,050	.. do.	..	34.9	18	Ql	N	Irr, Ot	..	..	11.6	5,233.7	4-13-62	Dr; U(1959)
1	4cada	1,900	2,900	.. do.	..	48.4	24	Ql	T, E	Irr, Ot	250M	2.4	12.5	5,232.4	4-13-62	A35; Dr; P
1	4ccaa	1,200	4,050	.. do.	1952	598	24	Qb, Ql	T, E	Irr	1,075M	1.8	17.0	5,238.8	4-13-62	A65; Dr; FDI; ML(10-28-59)24.6; MS
2	4dbac	2,140	1,950	.. do.	1909	2208	5	Tkdu	..	D, B, IrrL	..	..	+23.6	5,748.3	3-23-59	Dr; FDI; MS
2	4ddac	870	400	J. Loyd	1945	3508	6	Tkdu	J, E	D	..	..	8	5,793.0	1957	Dr. Flowed at 275 feet in 1945
1	5adac	3,500	350	L. Dixon	1956	69.6	24	Qb, Ql	T, E	Irr, Ot	850M	14.5	10.4	5,720.3	4-13-62	A40; Dr; FDI; MSP
2	5adcc	2,810	1,200	.. do.	1953	2208	5 to 4	Tkdu	J, E	D	..	..	13.1	5,767.3	3-23-59	Dr; FDI. Flowed in 1953
2	7dcaa	1,150	1,350	W. Schumann	1959	2248	8 to 6 to 4	Tkdu	S, E	D, IrrL	9M	..	144	5,900	3-21-59	B45; Dr; FDI; MS

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)	Depth to water (feet)	Altitude of land surface (in feet above sea level)	Date of measurement	Remarks
1	9aabb	3,050	J. Loyd	1953	43.5		Op, Ob, Ql	T, E	Irr	500R		12.6	5,754.6	4-13-62	A20(1956); A60(1959- with 2 wells); B41; Dr; L; WL(7-16-56) 19-9; WL(9-2-59) 17.1
1	9abbb	3,300	do.	1956	43R	5	Opp, Ql	Cyl, M	S	10R		9	5,737.8	5-11-56	Dr; L; Tchl 30-43
1	9abcc	2,700	do.	1953	57R	18	Ob, Ql	T, E	Irr	970M	20.3	17.4	5,764.5	4-13-62	A50(1956-59); Dr; FD; WL(10-28-59) 21.3
1	9adde	2,700	do.	1943	41.9	24	Ob, Ql	T, E	Irr, Ot	700E	17.9	14.7	5,769.1	4-13-62	A91(1951); A40(1956); A60(1959- with 2 wells); Dr
1	9adde2	2,690	do.		31.4	24	Ob, Ql	M	Irr, Ot			1.3	5,758.4	4-13-62	Dr; Q(1956-62)
1	9adde	2,670	L. Dixon	1954	71.0	18	Ql	T, E	Irr, Ot	180M	39.7	24.6	5,773.7	4-13-62	A50(1956-62); Dr; L; WSP
1	9adde	2,670	do.	1954	70.0	18	Ql	T, E	Irr, Ot	241M	33.3	23.2	5,770.8	4-13-62	Dr; L; WSP
1	9adde	1,500	D. Weaver	1958	71.0	8	Ql	T, E	D, Irr	52R		15	5,776.3	10-16-58	B60; Dr; FD; GE; L; WSP
1	9adde	1,700	L. Rose	1953	86R	18	Ob, Ql	T, E	Irr	1,000R	25	26.2	5,776.2	4-13-62	A45(1956); A115(1959); B84; L050; WL(8-9-56) 34.7; WL(9-1-59) 35.4
1	9adde	50	D. Weaver	1953	85R	18	Ob, Ql	T, E	Irr	1,000R	9	21.5	5,791.3	4-13-62	A45(1956); A47(1959); B79; Dr; GE; L; WL(9-2-59) 24.3
2	13ddab	1,150	D. Pope	1958	203R	6	Tkdu	S, E	D, S	812R	20	108.0	6,140	10-1-59	Dr; H7; L; Tchl 45-190; WL(6-21-58) 140
2	14abda	4,400	F. Pearson	1960	350R	6 to 4	Tkdu		D	815		185	6,000	10-27-60	B3; Dr; H8-5
2	15baab	5,250	R. Daughenbaugh	1961	400R	10	Tkdu	T, E	Ind	84R	154	48	5,834	4-22-61	B65; Dr; B15; L; P220-400
2	15babb	2,880	L. Thiel	1954	175R	6	Tkdu	J, E	D	5R		20.9	5,864.4	4-13-62	Cf; Dr; FD; WS
1	15cccd	100	G. Clarke	1950	60R	18	Ob, Ql	T, E	Irr	418M	20	20.9	5,814.6	4-13-62	A80(1956); A70(1959); Dr
1	16adcd	2,700	F. Dransfeldt	1946	47.8	24	Ql	T, E	Irr	874M	16.6	456	5,793.4	4-13-62	A129(1956); A110(1959) H
1	21abaa	5,150	G. Clarke	1950	34.4	48	Opp, Ob, Ql	M	Irr	650R	22	5.6	5,802.3	4-13-62	Dr; FD; WL(8-9-56) 19.0; WL(7-13-59) 14.7; WS
1	22abdd	4,050	Parker Fire Dept.	1959	75R	6	Ql, Tkdu	J, E	D, Fire	25R		31.5	5,869	4-13-62	WL(9-1-59) 6.1 B30; Dr; H7; L; Tchl 60-75; WL(4-1-60) 27.8
1	22baed	4,050	G. Clarke	1955	58.2	18	Ql	T, E	Fire, Irr, Ot			30.1	5,846.9	4-13-62	A50; B39; Dr; L
1	22bcab	3,950	do.	1946	63.4	24	Ob, Ql	T, E	Irr, Ot	565M	31	24.6	5,836.8	4-13-62	A75; AT; B85; Dr; FD; T8; WS
1	22bcab2	3,940	U.S. Geological Survey	1959	90.0	10	Ob, Ql	M	Ot			27.9	5,839.4	10-28-59	B45; Dr; GE; L; PP; S4; SL
1	22bcab3	3,940	do.	1959	92.5	10	Ob, Ql	M	Ot			28.1	5,838.6	10-28-59	B46; Dr; GE; L; PP; S4; SL
1	22bcbc	3,450	I. Gregg	1959	63.7	18	Ql	T, E	Irr	600R		23.8	5,834.3	4-13-62	A45; M61; Dr; L; S; WL(9-2-59) 18.3
2	22bddd	3,730	do.	1959	222R	6 to 4	Tkdu	S, E	D	20R		40	5,843	11- -59	B40; Dr; H8-6; L; Tchl 40-222
1	22cbbc	2,250	R. Mardock		56.4	18	Ql	T, E	Irr	1,000R		15.4	5,833.9	4-13-62	A45; B62; Dr; GE; H40; L; WL(9-2-59) 25.8
1	22ccdd	50	R. Williamson		54.8	24	Ql	T, E	Irr, Ot	630M	11.7	12.4	5,840.2	4-13-62	A51; Dr; F; FD; WS
2	24ccdd	20	L. Birch		Spring		Tkdu		S	820R			6,088	6-25-61	
1	27badd	4,230	R. Williamson	1950	51R	18	Ob, Ql	T, E	Irr	850M			5,843.1		A45; Dr
1	27bcdd	2,800	L. Motzenbocker	1950	58R	24	Ob, Ql	T, E	Irr	1,200R		17.1	5,857.4	4-13-62	A100; B58; Dr; F228-58
1	27cccc	70	F. Poliochio	1953	58.9	18	Ql	T, E	Irr	220R	36	2	5,878.6	4-13-62	WL(8-10-56) 33.6; WL(9-3-59) 24.7
															A30; B60; Dr; L; WL(8-10-56) 35.1

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
1	27cdd	50	4,000 f. Poliochio.	1954	48.3	24	Qp, Ob, O1	T, E	Irr	850R	39	3	5.4	4-13-62	A30; M51; DL; Dr; P19-51; WL(2-26-54)6; WL(8-10-56)18-0; WL(9-3-59)15.2
1	27cdd32	50	3,980	1960	57R	18	Qp, Ob, O1	T, E	Irr	1,000R	25	9	5,866.8	7- -60	B55; Dr; L; P122-58; Replacement for Cdd
1	27cdd33	20	2,700	1954	48.9	18	Qp, Ob, O1	T, E	Irr	600R	17.0	1/2	5,868.1	4-13-62	A45; Dr; WL(7-26-56)26.9; WL(9-3-59)15.2
1	27dbee	1,140	2,630 J. Forkner.	1954	44R	18	Qp, O1	T, E	Irr	300M	17.0	1/2	5,861.7	4-13-62	A65; B42; Dr; FO; GE; L; WL(7-26-56)23.4; WSP
1	30aeed	4,030	700 V. Parker.	1954	34.6	18	Ob	T, G	Irr	400R	12	6	5,960	4-13-62	A16; B26; DL; Dr; P; P121-36; TH; WL(6-28-54)12
1	33adab	3,900	600 H. Stroh.	1950	..	..	Qp	..	Irr	..	..	..	5,920.9	..	U(1952-59) Inadequate
1	34abab	4,300	3,700 F. Egger.	1948	60.9	24	Ob, O1	T, E	Irr	798M	19.7	1/2	5,875	4-13-62	A72; B62; Dr; FO; GE; H52; L; P128-62; WL(8-10-56)24.2; WL(9-3-59)19.6; WS
1	34cab	3,900	4,550 D. Stroh.	1953	57.0	24	Ob, O1	T, E	Irr	430M	9.2	3	5,883.7	4-13-62	A40; Dr; WL(1953)45; WL(9-3-59)23.9
1	34dab	1,250	3,200	1951	66R	18	Ob, O1	T, E	Irr	640M	19.2	24	5,899.3	4-13-62	A140; Dr; WL(8-10-56)23.7
1	34ddc	50	3,000	1946	53.3	24	Ob, O1	T, E	Irr	800R	25	..	5,913.8	4-13-62	A180(1951); Adu(1956); Dr; U(1959); WL(8-10-56)24.3; WL(9-3-59)23.6
1	34dcb	1,230	2,520 E. Rudine.	1952	71R	24	Ob, O1	T, E	Irr	450M	19.8	5	5,915.7	8-10-56	A180; Dr; P115-71
1	34dcb	900	2,500	1958	73.1	18	Ob, O1	N	Irr	..	..	..	5,917.8	4-13-62	B73; DL; Dr; WL(9-3-59)39.2
2	6abaa	5,400	1,460 Western Concrete, Inc.	1960	318R	6 to 4	TKdu	S, E	Ind, Pr	F13R	..	..	5,705	6-30-60	B1; L; H7-5; L; Tcn234-318
2	8baba	3,700	4,820 L. Phillips, Jr.	1948	121R	6 to 4	TKdu	Cyl, M	D, Or	5R	..	..	5,820.0	4-21-62	B37; Dr; L
2	18baab	5,260	3,100	1948	334R	4	TKdu	Cyl, M	S	4R	8	..	5,947	7-17-57	Dr; FO; L; WSP
2	20adbb	1,300	1,260 H. Webster.	1960	235R	6 to 4	TKdu	S, E	D	B20R	10	..	6,260	7-8-60	DL; Dr; FO; HB-6; P190-220; 205.5
2	27cdda	350	2,750 V. Ramer.	1959	120R	6	TKdu	J, E	D	102	..	..	6,210	12-18-59	Dr; L; Tcn66-111; WS; WSP
2	27dadb	350	1,250 A. Cerena.	1960	92.4	6	TKdu	J, E	S	20R	..	..	6,220	9-15-60	DL; Dr; Tcn70-92; WL(8-15-59)60
2	3caba	2,400	2,880 L. Phillips, Jr.	1955	332R	4	TKdu	Cyl, M	S	6R	10	..	5,828	..	B4; DL; FO; L
2	3dbac	2,200	1,970	1955	533R	12 to 10	Kdmc	..	S	F1.5M	..	..	5,570	7-17-57	Dr; FO; WSP
2	4aad	4,800	170 M. Fisher.	1955	250R	..	TKdu	..	S	F1M	..	..	5,470	4-26-55	Dr
2	4aaba	5,200	900	1955	810R	6 to 4	Kdmc, Kdlc	..	D, IrrL	F111M	..	..	5,340	4-26-55	AT; B09; Dr; EL; FO; GKE; L; P167-810
2	4aadb	4,550	400	1916	258R	5 to 4	TKdu, Kdmc	J, E	D	F0.7M	..	..	5,490	4-25-55	B27; DL; Dr; T56; Flowed 45 gpm in 1916
2	4abaa	3,350	1,450	1956	322R	6 to 4	Kdmc	J, E	S	B27R	22	..	5,500	5-31-56	B21; Dr
2	4abaa2	5,500	1,430	1957	760R	6	Kdmc, Kdlc	..	D	F300R	..	..	5,515	7-25-61	DL; Dr
2	4abad	4,700	1,550	1953	595R	6 to 4	Kdlu	..	Pond	F5M	..	..	5,498	4-25-55	DL; Dr; T63; Tcn416-595; Bailed 60 gpm
2	4abdc	4,130	1,730	1958	605R	6 to 4	Kdmc, Kdlu	..	Pond	F50R	..	..	5,520	12-8-58	B14; DL; Dr; P148-170; 412-605
2	6adab	350	1,800 Cuppeco, Inc.	1957	699	8	Kdlc, Klu	S, E	Ind, B	89R	517	23	5,498.0	12-18-57	B72; Dr; EL; L; Tcn526-680; WSP; Flowe 5 gpm

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well casing (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks	
1	C6-68-7bbba	5,190	4,720	Colo. Central Power Co.	1957	41.5	18 Qp,Qb,Ql	T,E	Irr	800R	25	2	5.8	5,406.5	4-11-62	A28-4; B43; Dr; GE; H34; L; P415; WL(7-15-59)5.2
1	7bbbb	5,260	5,020	do	1957	43.0	18 Qp,Qb,Ql	T,E	Irr	1,200R	26	3	5.5	5,405.0	7-15-59	A28; B43; DL; Dr; GE; H43; P415
1	7bbba	4,600	4,200	do	1957	52.5	18 Qb,Ql	T,E	Irr	1,050R	..	..	17.1	5,421.6	4-11-62	A28-4; B50; DL; Dr; GE; H42; P437; WL(7-15-59)14.9
1	7bcd	2,680	4,120	L. Phipps, Jr.	..	14.0	48 Qpp,Qb	N	Irr	..	..	..	5.3	5,422.1	4-11-62	Dr; U(1959); WL(7-15-59)16.6
1	7cacc	1,620	3,680	do	..	38R	24 Qpp,Qb	T,E	Irr	620M	..	..	5	5,426.2	..	A40; Dr
1	7cacc2	1,620	3,780	do	..	23.3	48 Qpp,Qb	C,E Irr, Ot	..	50E	3	..	1.9	5,426.9	4-11-62	Dr; Gy100
1	7cacc3	1,520	3,800	do	..	23R	48 Qpp,Qb	N	Irr	..	..	..	5,427.0	..	Dr; Gy100	
2	8abbd	4,700	2,130	do	1954	214R	6 to 4 Kdmc	Cyl, G	S	B22R	30	..	60	5,547	2-54	B19; Dr; L
2	8bbbc	4,620	5,300	do	..	373	4 Kdmc	Cyl, H	Ot	..	..	..	8.6	5,563.8	4-5-62	Dr
2	10acab	3,750	1,650	do	..	302R	4 to 3 Tkdu	..	S	PJM	..	..	45.8	5,669	7-17-57	DL; Dr; FD; WSP
2	13acbc	3,320	2,400	do	..	326R	4 Tkdu	Cyl, W	S	8R	5	..	100	5,944.0	1957	B3; Dr; L
2	14bada	3,050	2,670	do	..	800R	10 to 5 Tkdu, Kdmc	Cyl, W	S, D	..	..	..	..	5,996.0	..	Dr
2	14bada2	3,000	2,670	do	..	1,012	12 to 5 Tkdu, Kdmc	Cyl, W	S, D	..	..	..	..	5,996.0	..	Dr
2	14dbbc	2,050	2,350	do	1930	800R	10 to 6 Tkdu, Kdmc	Cyl, W	S, D	150M	..	..	..	5,996	7-16-57	Dr; FD; L; WS
2	16abaa	5,120	1,580	do	1950	465R	12 to 8 Tkdu	T, E	D	2M	..	..	115.8	5,684	7-19-57	B40; Dr; FD; L; WSP
2	17bdad	3,530	2,770	do	1947	354R	4 Tkdu	Cyl, W	S	7R	39	..	130	5,688.0	10-47	B47; Dr; FD; L; P4120; WSP
1	17cbcc	1,380	5,000	do	1960	46R	18 Qpp,Qb,Ql	C, E	Irr	800R	..	..	4.8	5,468	1-3-62	A35; Dr; H42; L; P424-46; WL(5-60)5
1	17ccad	700	4,050	do	..	18.7	216 Qp,Qb	C, G	Irr	..	..	..	11.4	5,492.8	7-29-57	D
1	18abcb	4,460	2,520	do	..	19.6	48 Qpp,Qb	C, E	Irr, Ot	410M	..	..	5.9	5,444.0	4-11-62	A112; B42; Dr; S1
1	18abcb2	4,450	2,530	do	..	48R	18 Qpp,Qb,Ql	T, E	Irr	410M	34.1	1-1/2	9.5	5,443.4	8-12-59	AT; B38; B42; L; TH
1	18dabb	2,400	1,050	do	..	28.2	96 Qp,Qb,Ql	T, E	Irr, Ot	..	..	..	8.1	5,461.2	4-11-62	D; U(1957)
1	18dabb2	2,400	1,010	do	..	41.5	18 Qp,Qb,Ql	N	Irr, Ot	..	..	..	7.0	5,460.6	1-2-57	D; U(1957)
2	18dabb	1,200	1,180	do	..	350R	6 Kdmc, Kdlu	..	S, Ot	P4.4M	..	..	..	5,477.8	4-21-62	AT; Dr; FD; WSP
1	18dadd	300	220	do	..	31.3	40 Qpp,Qb	C, E	Irr, Ot	280M	9.6	..	..	5,473.3	4-11-62	A70(with 2 wells); D; FD; WSP
2	19abba	5,150	2,250	J. Brasley	1950	220R	4 Kdmc	J, E	D, S	10E	9.8	1/6	10.6	5,574	7-19-57	Dr
1	20abba	3,500	4,920	L. Phipps, Jr.	..	31.9	48 Qpp,Qb,Ql	N	Irr	57M	5.3	1-1/2	7.4	5,472.2	5-6-59	AT; D
2	20abba2	3,420	3,300	E. Wilkinson	1911	222R	.. Tkdu, Kdmc	J, E	D, S	P10E	..	..	..	5,514	5-6-59	Dr; FD; P411
1	20baca	3,080	3,380	do	..	7.5	48 x 48 Qp	Cyl, H	N	..	..	..	4.5	5,503.0	4-11-62	Flow greater in 1911
1	20dcdb	420	1,850	H. Axtel	..	..	36 Qp,Ql(?)	C, M	Irr	..	..	..	..	5,524.3	..	D; WL(5-6-59)5.0
1	20dcdb2	380	1,790	do	..	13.6	48 Qp,Ql(?)	J, E	D	..	..	..	9.1	5,529.0	4-11-62	Dr; U(1959)
1	20dcdb3	460	1,750	do	..	11.6	6 Qp,Ql(?)	N	..	..	..	..	9.2	5,526.9	7-15-59	D; WL(7-16-59)9.9
2	21addd	2,960	..	L. Phipps, Jr.	..	454R	.. Tkdu	Cyl, W	S	..	..	..	285	6,128	..	Dr; L
2	24bccc	2,930	5,250	do	..	400R	4 Tkdu	Cyl, W	S	2M	14	..	286	6,128	..	Dr; FD; L; WSP
2	27ccac	750	4,300	do	1961	600R	8 to 6 Kdmc	T, E	Irr	60E	73	8	62	5,700	6-5-61	A14; Dr; H11-7; L; Tch280-600
1	31dbbb	2,550	2,380	E. I. DuPont de Nemours & Co.	1934	34R	24 Qpp,Ql	T, E	Ind, B, C	153M	8	1	10	5,595	9-16-60	Dr; FD; P425
2	31dbcc	1,500	2,350	do	1900	715R	12 to 8 Kdmc, Kdlc	T, E	Ind, PS	374M	..	..	..	5,600	4-7-60	B42; Dr; FD; L; WS; WSP. Flowed 178 gpm in 1906
1	C6-69-1aadb	4,400	350	Four Corners Uranium Co.	1957	20.3	48 Qpp,Qb	N	Irr	..	..	..	3.2	5,303.9	4-12-62	D; U(1959); WL(4-11-59)4.0
2	1acac	3,620	1,700	R. Flood	1900	152R	4 Kdlc	..	D	B15R	22	..	2	5,410	3-8-60	B44; Dr; L; ON(60-152); P448-60
2	1bbbc	4,800	5,050	W. Petty	1959	264R	4 Kdlc	S, E	PS	14R	96	..	108.6	5,538	10-26-59	B12; Dr; GE; H8-6; L; Tch218-264

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, of water	Use of (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
1	Co-69-1	1,930	2,500	1. Becker.	18.0	6	Qpp,Ol(7)	C,E	Irr,L,Sw	50R	1.3	5,407.3	4-12-62	Dr; WL(5-11-59)4.6
2	2abbb	5,420	2,620	National Development Co.	469R	8 to 6	Kdai,Kalc	T,E	PS	830R	10	5,585	10-29-55	B15, Dr; EL; L
1	2bcb	2,650	4,000	do	21R	48	Qp,Qc	T,E	PS	30R	10	5,550	8-60	B23, Dr; L
1	2abab	1,020	460	J. Janowitz.	32.9	36	Ql,Qv	N	OK		10.4	5,422.3	4-11-62	Dr; U(1956-62)
1	2abca	600	180	do	48.2	36	Ql,Qc,Qv	C,E	Irr,OT	272W	13.2	5,412.7	4-11-62	B15, Dr; WSP
1	3ccca	460	4,900	M. Hildebrand.	23.1	84	Qp	J,E	Irr,OT		10.8	5,438.7	7-14-59	A40, D
2	8abca	4,360	2,120	Mannon Associates.	937R	8	Pf	PS	PS	22M	49.6	5,750	7-18-62	B39, Dr; PU; H11-7; L; Q(97-957)
1	8abcb	4,350	2,550	do	22R	24	Qp	N	PS	14R	5.4	5,760	4-11-62	Dr; Q(80x70); WL(3-15-62)2.0
1	8badb	4,250	2,700	do	28R	24	Qp	J,E	PS	13R	8.8	5,770	4-11-62	B28, Dr; H16, L; WL(8-3-60)8; WL(3-15-62)8.4
1	10adaa	3,750	100	E. Green	51R	8	Qp,Ol	S,E	PS	20R	8	5,470.2	4-13-59	B41, Dr; L; Tchl8-41
1	10adda	3,480	50	do	42R	12	Qp,Ol	T,E	Irr	240W	10	5,467.5	4-11-62	Dr; U(1959)
1	11aada	4,450	70	J. Janowitz.	48.3	24	Qp,Ol	N	Irr	939R	11.8	5,407.2	4-11-62	B48, Dr; GE; H48, L; Pf(3-48); WL(5-11-59)11.8
1	11bedc	2,800	4,500	D. Hugans.	56.0	18	Qp,Ol	N	Irr		10.9	5,452.6	4-11-62	Dr; U(1959); WL(5-11-59)7.3
1	11cbab	2,550	4,600	do	50.8	18	Qp,Ol	N	Irr	58W	12.1	5,452.0	4-11-62	AT; Dr; U(1959); WL(7-16-59)3.1
1	12aaac	4,850	500	J. Stryker	23R	48	Qp,Ol	C,E	Irr	100R	6	5,400	4-20-61	A16, Dr; L; Pf(11-23); WL(7-27-61)10
2	12acdb	3,100	1,700	J. Filbert	235R	4	Kd11,Klu	T,E	D			5,430	1953	Dr; FDI; Pf(11-23)
1	12bacc	4,120	3,900	L. Skinner	50R	6 to 4	Qpp,Ol	C,E	D	30R	15	5,398.3	8-30-58	B47, Dr; L
2	12cbdb	900	2,000	R. Moser	512R	6 to 4	Kd11,Klu	Cy1,E	D	B13R	10	5,485	5-25-56	B26, Dr; EL; L
1	14aaac	4,880	400	Gardner Construction Co.	22R	6	Qpp,Ol	S,E	D	15W	9	5,421.4	4-8-58	DL; Dr; Pf(7-22)
2	15ccac	750	1,900	City of Englewood.	9,235			N	Ol1			5,638		Dr; EL; Bottom-hole temperature 162°F
2	21adaa	1,700	100	H. Hines	215R	6	Klu	N	TW			5,510	4-1-58	Dr; Dry
2	21adad	1,900	450	do	59R	7	Ol,Qa	N	D,E	10R	26.2	5,470	4-1-58	Dr; EL; PU; OH(26-598)
1	21adad	1,560	120	do	39R	48	Qpp,Ol	T,E	PS,E	924W	7.1	5,479.5	12-3-5	AT; Dr; L; Pf(11-15)
1	21abbb	2,430	2,440	Denver Water Board	41.4	6	Qpp,Ol	N	TW,OT		5.8	5,446.6	4-11-62	B38, DL; Dr
1	21abbc	2,200	2,630	do	31R	48	Qpp,Ol	T,E	PS,E	713W	6.9	5,446.8	11-19-54	AT; B31,OL; Dr; Pf(12-8-31)
1	21abbc2	2,150	2,500	do	36.8	6	Qpp,Ol	N	TW,OT			5,448.1	4-11-62	B40.5; DL; Dr
1	21abbc3	2,350	2,620	do	38.3	6	Qpp,Ol	N	TW,OT			5,446.8	4-11-62	B38, DL; Dr; PU; WS; WSR
1	21abcc	1,550	2,620	do	37.8	24	Qpp,Ol	T,E	PS,E	750W	8.0	5,449.5	6-28-55	B33, Dr; L
1	21abcc2	1,450	2,400	do	37.3	24	Qpp,Ol	T,E	PS,E	750W	6.6	5,449.1	6-29-55	B32, DL; Dr
1	23abab	1,850	1,800	do	27.8	6	Qpp,Ol	N	TW,OT		5.1	5,446.1	4-11-62	B33.5; DL; Dr
1	23adcd	100	2,000	A. Myrick.	813R	6 to 4	Kalc,Klu	C,G	Irr	1,100R		5,450.5		A35, Sump
2	24acab	4,370	1,160	B. Clark	210R	6	Kd1	J,E	D	5R	24	5,555	1960	DL; Dr
2	24abdd	4,150	1,470	C. Ramsdell.	850R	4	K1	S,E	D	B10R	29	5,550	8-15-60	B54, Dr; L; Pf(148-210)
2	24acab	3,830	1,700	R. Evans		4	K1	N	TW			5,550		B54, DL; Dr; EL; Sa
2	24acab2	3,830	1,950	do	900	7 to 4	K1B	S,E	D	13R	70	5,499	3-21-61	B29, Dr; EL; L; H8 5; Sa; EL; Tchl85-900
2	21acbb	2,680	2,550	J. Johnson	600	4	K1B,K1a	J,E	D	20E	20	5,539	1956	Dr; WL(1900)+10; WS
2	24acda	3,300	1,560	Hier and Price	1,029R	7 to 4	K1B,K1a	N	PS	B42R	59.4	5,565	8-11-62	B29, DL; Dr; H1-5; Pf(839-1,029); WL(6-62)60
2	24cccd	130	4,670	M. Rosendale	1,340R	12	K1B,K1a, K1a,Kt	N	Ol1	F1E		5,524.9	7-2-57	FD; GNL; WSP
1	26acbd	3,500	2,000	Shore	8R		Qpp	C,N	Irr	670R		5,459		A35
1	26bcb	3,100	5,070	Air Products Corp.	26R		Qp,Ol	T,E	Ind,Pr	150R	7.4	5,462.0	7-20-57	Dr; Sa; SL
1	26bdba	3,700	3,550	G. Martin	24.8	24	Qp,Ol	T,E	Cons,OT	360W	1.9	5,457.6	4-12-62	Dr

Table 2.--Records of sealed wells and springs--Continued

Plate number	Location number	Map distance north west (feet) (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drigdown (feet)(hours)	Depth of water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
C6-69-34adb	1	3,150	Associated Realty	1954	29.5	48	Qpp,Ql	M	PS	190.1	4.5	3/4	5.5	7-14-59	AT, B1, D, L; T56; U(1959)
C6-70-2adb	2	1,000	A. Schmitt	1954	102R	6	PC		D	1R			7,200	6-23-59	M8; D; G; H7-5; L; OH(26-102)
4btdb	2	4,500	Mountain High Chapel Church	1959	64R	7 to 6	PC	J,E	D	6R			7,540	5-2-61	D; F2; G; L; OH(10-64)
4daab	2	2,500	G. Anderson	1953	47A	8 to 7	PC	Cyl,H	D	81R	21	3	7,230	5-2-61	B9; D; F2; G; L; OH(10-64)
4dada	4	1,650	J. Shelley	1954	112R	7	PC	S,E	D,S	4R	60	12	7,280	5-2-61	D; F2; G; L; OH(10-64)
4jadb	1	1,900	B. Braconier	1953	50R	8 to 6	Qp,PC	S,E	D	15R			7,220	9-12-59	B40; D; G; L
5dbdb	2	2,200	E. Hobbs	1954	38R	5	PC	S,E	D	1R	30		7,630	5-2-61	B8; D; F2; G; L; OH(10-64)
11abdb	2	4,200	R. Downate	1954	143R	4	PC	S,E	D	4R			7,040	11-16-58	D; F2; G; L; OH(10-64)
13cbcd	2	1,460	W. Rees	1954	201R	6	PC		D	<1R			6,680	11-24-59	B9; D; F2; G; L; OH(10-64)
24bcb	1	4,230	S. Zahn		16.5	48	Qpp	C,E	D,Irr,L	5R			6,765	4-11-62	D; F2; G; L; OH(10-64)
24bcb2	2	4,260	do		16R	42	PC	C,E	D,Irr,L	2E			6,760	4-11-62	D; F2; G; L; OH(10-64)
25bdc	2	2,850	M. Olson	1954	91R	6	PC	J,E	D	3R			7,300	9-59	B14; D; F2; G; L; OH(10-64)
C6-71-12adb	-	2,700	H. Johnson	1954	100	6 to 5	PC	J,E	D,Irr,L	5E	80	3/4	7,980	2-11-59	B6; D; F2; G; L; OH(10-64)
15bcb	-	2,650	W. Gellan	1954	183	6	PC		D	4R			8,330		L; F250,100; WS; D; G; L; OH(10-64)
C7-65-1daad	-	2,200	B. McBreen	1954	35R		TKdu	Cyl,W	D,S	3R			6,405	1960	D; F2; G; L; OH(10-64)
8cddb	2	400	R. Rosenthal	1960	232R	6 to 4	TKdu	S,E	D,Irr,L	B15R	4		6,540	10-12-60	D; F2; G; L; OH(10-64)
9bccc	2	2,650	P. Britton	1954	307R	6 to 4	TKdu	S,E	D,S	10R			6,595	7-14-58	B3; D; F2; G; L; OH(10-64)
9cbcb	2	1,900	A. Reno	1954	320R	6 to 4	TKdu		D,S,Irr,L	B11R	20		6,600	11-10-58	B3; D; F2; G; L; OH(10-64)
9scdb	2	400	W. Maxwell	1962	315R	6 to 4	TKdu	S,E	D	12R	52		6,600	4-25-62	B2; D; F2; G; L; OH(10-64)
14ccce	4	200	G. Bentley	1955	298R	6 to 4	TKdu	S,E	D,Irr,L	B10R	14		6,550	6-10-61	B3; D; F2; G; L; OH(10-64)
15daa	2	1,200	R. Bentley	1955	300R		TKdu	S,E	D	10R			6,580	6-10-61	D; F2; G; L; OH(10-64)
16acbc	2	3,500	R. Birney, Jr.	1950	310R	6	TKdu	S,E	D	10R	30		6,610	3-21-58	B15; D; F2; G; L; OH(10-64)
16bacc	4	4,150	L. Walliden	1954	298R	6 to 4	TKdu		D	B10R	22		6,600	7-5-58	B12; D; F2; G; L; OH(10-64)
29acab	4	4,500	G. McCown	1961	184R	4	TKdu	S,E	S	B18R	20		6,445	6-10-61	B1; D; F2; G; L; OH(10-64)
29adaa	2	3,900	do	1954	182R	6	TKdu	S,E	D	18R			6,435	1959	D; F2; G; L; OH(10-64)
29adaa2	1	3,920	do		35R	24	Qp	N	E				6,435	4-13-62	D; F2; G; L; OH(10-64)
29cbcc	1	1,500	A. Mothachopf		28R	48	Qp,Qb,Ql	C,E	Irr	150E	10		6,305	4-13-62	D; F2; G; L; OH(10-64)
29cbcd	1	1,500	do	1952	42R	18	Qp,Qb,Ql	T,E	Irr	300E	16	6	6,309	4-13-62	A25; D; F2; G; L; OH(10-64)
29cdca	1	350	E. Walliden	1954	50R	18	Qp,Qb,Ql	T,E	Irr	110E	24	1/4	6,332	4-13-62	A20(With 2 wells); D; F2; G; L; OH(10-64)
29cdcb	1	350	E. Walliden	1940	30R	48	Qp,Qb,Ql	T,E	Irr	220W	4	1/4	6,330	4-13-62	D; F2; G; L; OH(10-64)
30abab	2	5,120	E. Obroslineki	1954	120R	5	TKdu	J,E	D,Irr,L	12R	15		6,250	3-31-58	B21; D; F2; G; L; OH(10-64)

Table 2. --Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
1	10465-10466	2,000	J. Rothachopf	1954	70R	48 to 18	Qp, Ob, Ol, TKdu	C, E	Irr	100E	12	7	6,300	6-30-61	A23 (with 2 wells); B56; D01; L1; TH; WL(1-61)5
1	10467	1,800	do	1953	54R	18	Qp, Ob, Ol, TKdu	T, E	Irr	200E	25	7	5,285	6-30-61	B56; D1; GE; TH
1	10468	2,600	E. Boules	1954	66R	16	Qp, Ob, Ol, TKdu	T, E	Irr	150R	21	6	6,260	4-13-62	A40; H44; D1; GE; L1; P111-58; 80; WL(9-10-55)15; WL(7-1-61)7.6
2	10469	1,000	C. Verdas	1956	185R	16	TKdu	T, E	Irr	150E	56	71.9	6,440	7-31-62	A20; B8; D1; GE; H38; P184-164; WL(12-17-56)163; Drilled to 345 feet; plugged back to 185 feet
2	10470-10471	5,000	L. Record	1959	160R	5	TKdu	S, E	D	B15R	60	60	5,976.6	1- -59	D1; PD; MSP
1	10472	4,200	M. O'Brien	1946	38R	24	Qp, Ob, Ol	T, M	Irr, Or	250R	16	21.5	5,957.6	4-13-62	B38; D1; TH; U(1956-59)
1	10473	4,400	do	1955	75R	18	Qp, Ob, Ol	T, E	Irr	780M	16	25.5	5,925.6	4-13-62	A70; B74; D1; GE; L1; WL(7-26-56)11.6
1	10474	5,150	J. Willis	1958	80R	4	Qp, Ob, Ol	J, E	D	20R	2	21	5,915.8	7-17-58	B76; D1; GE; L1; P150-80
2	10475	4,050	M. Swinney	1956	80R	6	TKdu	Cyl, H	S	420M	14	4.2	5,919.2	9-15-59	D1
1	10476	2,800	do	1956	61R	18	Qp, Ol	T, E	Irr	420M	14	11.8	5,919.8	4-13-62	A100; B61; D1; GE; L1; P127-61; WL(8-10-56)19.7
1	10477	1,550	M. Christensen	1955	57R	24	Qp, Ob, Ol	C, M	Irr	662M	6.9	1/4	5,921.6	9-15-59	A94 (with 2 wells); B57; D1; GE; P130; WL(8-13-56)13.0
1	10478	800	do	1947	50R	24	Qp, Ob, Ol	T, E	Irr	160M	25	10.9	5,928.7	8-13-56	D1; GE; L1
1	10479	50	D. Vestal	1954	48R	24	Qp, Ob, Ol	T, E	Irr	250R	20	11.8	5,932.3	9-18-59	A450 (with 6 wells); D1
1	10480	2,550	M. Christensen	1946	40R	18	Qp, Ob, Ol	T, E	Irr	250R	20	11.8	5,921.8	9-15-59	A25; B40; D1; GE; L1
2	10481	1,330	D. Vestal	1946	Spring	18	TKdu	TKdu	S	71E	1	1	5,921.5	9-15-59	
1	10482	4,400	M. Swinney	1956	Spring	18	Qp, Ob, Ol	Qp, TKdu	S	71E	1	1	6,002.9	9-15-59	
1	10483	2,900	do	1956	Spring	18	Qp, Ob, Ol	Qp, TKdu	D, S	71E	1	1	6,016.6	9-15-59	B36; D1; L
1	10484	2,000	do	1956	60R	4	Ol, TKdu	Cyl, G	S	5	1	20	5,957.2	1956	B65; D1; GE; H49; L1
1	10485	3,100	D. Vestal	1956	65R	24	Ob, Ol	T, E	Irr	560M	18	24.3	5,946.4	4-13-62	L020; WL(8-13-56)24.4
1	10486	4,100	do	1946	64R	24	Ob, Ol	T, E	Irr	1,200R	18	24.7	5,948.1	9-18-59	D1; D1; GE; WL(1946)11.1
1	10487	3,750	S. Millard	1953	64R	4	Ob, Ol	J, E	D	31R	1	29	5,951.7	10- -53	B64; D1; D1
1	10488	70	P. Losey	1947	41.6	20	Qp, Ob	N	Irr	150E	1	25.8	5,981.5	4-13-62	D1; GE; H42; U(1959); WL(9-21-59)26.3
1	10489	70	do	1956	58R	18	Qp, Ob, Ol	T, E	Irr	306M	11.8	6.1	5,961.9	4-13-62	A60; B56; D1; F; GE; H42; L1; P110-56; WL(8-13-56)18.5; WL(9-21-59)9.4
1	10490	2,500	S. Millard	1949	52R	18	Ob, Ol	N	N	1	1	37	5,965.7	1949	B48; D1; Yield insufficient for large scale irrigation
1	10491	2,600	do	1956	59R	18	Ob, Ol	T, E	Irr	252M	7.2	33	5,952.5	4-13-62	A55; B58; D1; GE; H42; L1; P115-60; TH; WL(7-25-56)28.4; WL(9-18-59)28.6
2	10492	90	do	1953	273R	18	TKdu	J, E	D, Irr, L	5R	30	60	6,013.3	4-12-53	D1



Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use Yield of water (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
C7-66-														
1	15abcc	4,200	F. Szymanski	1951	Spring	300	Qpp	C, E	D, P, E	..	..	6,016.6	9-21-59	C
2	15abdb	3,900	..	..	Spring	..	TKdu	..	..	..	..	6,007.3	9-22-59	C
1	15abdb2	3,900	..	1949	90R	..	Qs(?) TKdu	J, E	..	..	27	6,000.8	1959	..
2	15abdb3	3,700	..	..	Spring	..	TKdu	..	..	..	..	6,021.2	9-21-59	D, U(1959)
1	15abdc	3,500	..	..	69.1	40 x 40	Qs, TKdu	M	..	..	43.8	6,021.7	9-21-59	..
1	15adcb	3,250	..	1959	120R	6	Qs, TKdu	J, E	D	35	..	6,018.9	1959	Dr
1	15badb	4,500	..	1956	62.3	18	Qp, Ql	C, E	Irr 800R	8	10.7	5,967.2	4-13-62	A100; B58; Dr; L; P15-60; TH; WL(8-13-56) 6.6; WL(9-22-59) 7.2
1	15bdcc	2,950	..	1951	..	300	Qpp	C, E	8, P, E	..	..	..	..	..
1	15cdcc	280	D. Vestal	1957	68R	18	Qp, Ql	T, E	Irr 400R	..	..	5,982.1	9-22-59	A30; D
1	15cdcb	200	..	1949	62.8	18	Qp, Ql	T, E	Irr 1,200R	24	..	5,999.0	9-22-59	B68; DL; Dr
2	19aacc	4,850	E. Scott	1959	271R	4	TKdu	Cyl, M	..	23	..	6,004.7	4-13-62	Dr; WL(9-22-59) 16.7
2	19bdab	3,150	E. Driver	1931	225R	5	TKdu	Cyl, M	D, S	..	..	6,275	10-5-59	B3; Dr; L; WSP
1	22baac	4,900	D. Vestal	1956	58R	24	Qp, Qb, Ql	T, E	Irr 480M	15	..	6,440	7-5-60	WSP
1	22cccd	800	M. Bechtold	1946	69R	18	Qp, Qb, Ql	T, E	Irr 1,300M	18	72	6,007.8	4-13-62	B57; Dr; GE; H40; L; S440; WL(5-25-56) 13
1	22cdcc	250	R. Clark	..	70R	18	Qb, Ql	T, E	Irr 1,108M	13.5	30	6,028.9	4-21-62	A135; B69; DL; Dr; FD; GE; WL(8-26-59) 20; WS
1	25aad	4,800	E. Bowles	1954	10R	..	Qp, Qb, Ql	T, E	Irr, E 600R	4	24	6,030.3	9-22-59	A35; B67; Dr; FD; L; WSP
1	27bcd	2,700	C. Converse	..	65R	16	Qb, Ql	T, E	Irr 570M	..	..	6,195	7-1-61	A70; D
1	27bdcd	2,700	..	1950	70R	..	Qb, Ql	T, E	Irr 700R	57	..	6,043.4	4-13-62	A75; B65; WL(9-22-59) 16.0
1	27cdad	970	C. Everitt	..	75R	18	Qp, Qb, Ql	T, E	Irr 850R	47	..	6,054.1	4-13-62	A70; Dr; GE
1	27daba	2,550	J. Habinek	1959	270R	4	TKdu	J, E	D	42	..	6,122.2	9-22-59	H32; L; P130; WL(8-14-56) 9.7; WL(9-25-59) 9.7
1	22dbbc	800	J. Arends	1956	220R	6	TKdu	J, E	D	..	..	6,120	7-5-56	B1; Dr; L; Tchl70-270; WSP
1	24acda	3,200	R. Walker	1952	45R	18	Qp, Qb, Ql	J, E	D	..	..	6,069.1	8-14-56	Dr; L; P1106-220
1	24acdb	3,000	..	1952	50.9	24	Qp, Qb, Ql	T, E	Irr 271M	38.3	1/2	6,069.7	4-13-62	A57; GE; H40
1	24bdaa	1,700	..	1954	15R	..	Qp, Qb, Ql	C, G	Irr 750R	..	..	6,064.8	9-24-59	A81; Dr; FD
1	24bdbc	1,450	H. Kelly	1950	66R	18	Qp, Qb, Ql	T, E	Irr, S 1,000R	20	..	6,077.6	4-13-62	WL(9-23-59) 16.0; WS
1	24cdcd	700	M. Hewins	1956	55R	24	Qp, Qb, Ql	T, E	Irr 460R	24	..	6,084.5	4-13-62	A20; D; Sump
1	24dadd	100	E. Larreau	1956	465R	4	TKdu	S, E	D	5	73.4	6,100	9-30-59	A24; B63; Dr; L
2	25ebcc	1,500	R. Walker	..	Spring	..	TKdu	..	S	..	..	6,110	9-23-59	A60; B52; Dr; L; WL(8-14-56) 13.0; WL(9-23-59) 11.2
C7-67-														
2	2abed	4,200	H. Haggins	1957	1,795R	8 to 6	Kdmc, Kdlc	S, E	PS, Ot	63M	103	6,430	1-12-60	B15; Dr; L; P1160-200, 290-465
2	2abed2	4,200	..	..	801R	8 to 6	TKdu	S, E	PS, Ot	B18R	20	..	..	AT; B2; Dr; EL; FD; GR; L; Tchl860-960, 1,260-1,600, 1,680-1,792; WS; WSP
2	25abcc	4,250	B. Williamson	1958	174R	4	TKdu	S, E	D, IrrL	15R	106	6,430	7-5-61	DL; Dr; EL; FD; GR; Tchl494-800; WS; WSP
2	25bada	4,450	J. Lagan	1957	208R	4	TKdu	S, E	D, IrrL	12R	60	6,160	9-15-59	B1; Dr; L; Tchl81; WS
2	27accc	3,100	T. Walker	1956	369R	6 to 5	TKdu	Cyl, E	S	88R	43	6,104.5	9-1-56	B4; Dr; P1309-369.2
1	19bbbc	4,800	..	1956	80.5	24	Qp, Qb, Ql	T, E	Irr	550R	40	5,880	4-11-62	Allu(With 2 wells); B93; Dr; L; P133-60; WL(5-7-56) 12
1	19bbcd	4,000	..	..	55.0	24	Qp, Qb, Ql	T, E	Irr	550R	..	5,855	4-11-62	Dr; WL(7-9-59) 16.7

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
2	C7-67-25bda	3,150	2,850 M. Murphy	1958	100R	6	TKdu	S,E	D	12R	50	200	6,500	7-18-58	Dr; L; Pt245-260, 290-300
2	26bcb	3,850	4,630 H. Springer	1958	800R	6	TKdu, Kdmu	S,E	Inst	840R	26	221.3	6,198.9	10-6-59	B2; Dr; H11-7; L; Tch342-797; WL(4-23-58)200
2	27bad	4,900	1,550	1958	450R	4	TKdu	N	Ol	822R	34	169.3	6,169.8	4-5-62	B2; Dr; H7-5; L; Tch309-450
2	27bdeb	3,200	3,950 J. Cramer	1956	100R	4	TKdu	J,E	D	882R	70	60	6,041.1	11-1-56	B1; Dr; Tch207-300
2	C7-68-1bda	3,080	4,050 L. Phipps, Jr.		230R	4	TKdu	Cyl, W	S	7M	12	62.1	6,000	8-27-57	M4; Dr; L
1	2dcb	1,950	1,300		100R	12 to 5	Op, TKdu	Cyl, W	S			3.0	5,865	8-27-57	MD; Dr; WSP
2	4abba	5,100	2,300 Louviers Mutual Water Co.	1960	800R	12 to 8	Kdmc, Kdlc	T,E	PS	273M	74	58.9	5,670	8-15-60	B107; Dr; PD; L; Tch194-232, 288-800; MS
2	4bdbc	3,600	3,900 E. J. DuPont de Nemours & Co.	1954	850	12 to 8	Kdmc, Kdlc	T,E	PS, Ind	310M		143.7	5,791.6	4-4-59	B32; Dr; L; Pt149-375, 474-490, 517-532, 552-586, 623-741, 790-822
2	5dabb	2,520	1,010 Eldorado, Inc.	1958	861R	8	Kdmc, Kdlc	N	Ol	870R	100	176.0	5,760	4-5-62	B39; Dr; EL; L; Tch350-861
2	11cbac	2,000	4,600 F. Navratil	1958	229R	4	TKdu	Cyl, E	D, IrrL	811R		100	5,780	5-23-58	B2; Dr; L; Tch160-229
2	11dbad	2,000	1,550 Sedalia Land Co.	1957	2,087R	9 to 6	TKdu, Kdmc, Kdlc	N	Ol	73B	156	197.8	5,942.8	4-5-62	B1; Core; Dr; EL; L; GRL; PP; Sa; SL; Tch50-1,040. Plugged back to 1,354 feet
2	13abca	4,480	2,050 T. Walker		450R	4	TKdu	Cyl, E	S	3M		250	6,079.4	9-25-59	Dr; WSP
1	13cdcd	200	3,550 Sedalia Water Co.	1900	45.8	276	QB, Q1	T,E	PS	500E	3.3	25.8	5,840	7-9-59	Dr; PD; WL(9-16-60) 29.1; WS
2	14daca	1,700	950 Santa Fe Railway Co.	1899	643R	8 to 4	Kdlc	N	N				5,840.1		B10; Dr; L; Plugged in 1959
2	27bbaa	5,000	3,970 Jesuit Retreat Home	1956	995R	8 to 6	Kdmc, Kdlc	S,E	D, S	830R	41	212.5	6,067.8	9-25-59	B12; Dr; EL; L; Tch723; WL(9-24-56) 200
1	3bcdad	800	2,900 Williams		45.4	18	QPP, Q1	N	Irr			5.7	5,865	4-11-62	Dr; U(1959); WL(7-6-59)7.7
1	C7-69-2abaa	5,000	1,550 Helmer Bros.	1930	30R	48 x 48	Qp	J,E	D, S	7E		3	5,630	7-6-61	D. Ury 1955-56
2	2accc	2,660	2,400 T. Helmer	1956	490R	4	Ke, Kly	J,E D, IrrL, E		13R	22	85	5,800	1-6-61	Dr; EL; L; Tch259-352, 398-490; WL(11-16-56)108. Water contains iron
1	2daba	2,550	950 A. Kominsky		27R		Qp	J,E	D, S	7E		3	5,650	7-6-61	D contains iron
2	21acbc	3,660	2,450 U.S. Government		Spring		PC						5,980		F2; SG; WSI
2	21acbc	1,470	2,330		Spring		PC			F			6,000		SG; WSI
2	C8-65-6cabd	2,000	3,600 M. Larsen	1957	270R	4	TKdu	S,E	D, IrrL	13R	28	192	6,430	4-23-57	B1; Dr; L; Tch68
2	6caba	1,100	4,900 D. Ranen	1959	223R	6 to 4	TKdu	N	D	812R	53	85	6,400	7-7-59	Dr; H8-5; L; Pt109-132, 188-223; U(1961)
2	8cabb	1,000	5,000 F. Arnold	1958	135R	6	TKdu	J,E	D, S	820R	30	60	6,500	4-11-58	Dr; PD; H7; L; Pt194-135
2	9dccc	200	2,600 G. Mathias	1958	176R		TKdu	J,E	D	10R	40	54	6,685	11-1-58	Dr; H6; L; Pt54-57, 160-170, 175-176
2	16dacc	1,500	1,000 P. Davis	1958	182R	6	TKdu	L,E	D, S, IrrL	20R		118	6,775	7-9-58	Dr; PD; H8; L; Pt118-182
-	32dacc	700	1,900 C. Konkel	1957	145R	6	TKdu	S,E	IrrL, D	12R		97.4	6,762	7-3-61	B2; Dr; PD; L; Pt100-145

Table 2.---Records of selected wells and springs--Continued

Plate number	Location number	Map distance North-South (feet)	Map distance East-West (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
CB-46-																
2	1bbbc	4,800	5,150	G. Vandervelt.	1960	229R	6 to 4	Tkdu	S,E	D,S	818R	25	115	6,340	5- 3-60	B1; Dr; FD; L; Tch199-429
1	2ccdc	300	4,550	C. McLain.	1950	64R	18	Qp,Qb,Ql	T,E	Irr	400R		7.3	6,126.7	9-24-59	A20; B63; Dr; GR; L; U(1959); WL(8-13-56)7.8
1	3abba	5,000	2,000	T. Halm	1950	70R	18	Qb,Ql	T,E	Irr,E	550R	28	25.1	6,108.3	4-13-62	A55; B59; Dr; GR; H36; L; WL(1956)32; WL(9-24-59)31.2
1	1abba	4,500	1,500	do	1956	66R	18	Qp,Qb,Ql	T,E	Irr	1,050R		9.9	6,091.8	9-24-59	A50; Dr; GR; H36
1	1acaa	3,900	1,600	do	1956	54.4	18	Qp,Qb	C,E	S,Irr, Ot	800R		.3	6,097.8	4-13-62	Dr; GR; TH; Inauf- ficient yield for large-scale irrigation
1	1adca	600	700	C. McLain	1956	54R	18	Qp,Qb,Ql	T,E	Irr	1,000R		5.7	6,116.4	4-13-62	A60; B52; Dr; L; WL(8-13-56)6.9
1	10abab	5,150	1,660	Cherry Creek Bird Farm	1957	52R	6	Ql	J,E	D,S	7M		27.1	6,145.4	2- 4-58	Dr; FD; WS; WSR
1	11bbac	4,900	4,350	C. McLain.	1935	72R	24	Qp,Ql	T,E	Irr	400R	50	8.3	6,143.4	4-13-62	A20; Dr; GR; L; U(1959); WL(9-24-59)14.8
2	12bbcc	4,700	4,550	F. Green	1958	195R	4	Tkdu	T,E	D,Irr,L	818R	66	74	6,300	1-13-58	B1; Dr; L; Tch85-195
1	12bccc	2,800	5,100	F. Newton.		12R		Qp,Qb	Port,G	Irr				6,225		Sump (with chad they hold 45 acre-feet)
1	12cbad	2,100	4,200	do		12R		Qp,Qb	Port,G	Irr				6,220		Sump
2	17bad	4,400	2,900	A. Michelson	1958	326R	4	Tkdu	Cyl,G	S	810R	128	112	6,605	9-18-58	B1; Dr; H5; L; Tch221-308
2	17dadd	900	100	do		Spring		Tkdu		S	P5R			6,500	7- 3-61	
CB-67-																
2	1dced	200	2,250	C. Christensen	1959	628R	6 to 4	Tkdu	S,E	D	812R	55	420	6,490	5-15-59	Dr; H9-5; L; Tch336-628
2	3cccd	1,450	3,350	G. Schweiger	1957	352R	4	Tkdu	S,E	Irr,L	12R	45	219.6	6,290	10-22-59	Dr; H5; L; Tch252-352
2	7ccaa	2,650	2,900	C. Blevins	1958	224R	4	Tkdu	Cyl,E	D	813R	85	85	6,282.9	7-11-58	WL(11-57)223
2	8ccdb	600	4,300	F. Moyer	1959	286R	4	Tkdu	S,E	D	10R		251.5	6,412.8	9-28-59	Dr; H8-5; L; Tch134-224
1	11baab	5,000	3,200	Town of Castle Rock.	1948	43.2	12	Qp,Qb,Ql	N	Ol			10.5	6,165	4-11-62	Tch171-286; WL(11-59)150; WS
2	11baab2	5,020	3,210	do	1962	800R	7 to 4	Kdmc	T,E	PS	250R		94.5	6,165	10- 1-62	Dr; O(1958-62) B75; DL; Dr; P(290-474)
1	11baca	4,600	3,400	do	1948	90R	16	Qb,Ql	T,E	PS	150R		41.4	6,185	2-27-58	WL(8-62)44; B90; Dr; FD; GR; WS; WSR
2	11bbcb	3,500	5,050	V. Perez	1956	352R	4	Tkdu	Cyl,E		812R	47	100	6,248.1	10-18-56	B34; Dr; L
2	11ldcb	1,700	1,300	Town of Castle Rock.	1954	1,608R	6 to 5	Kdmc,Kdlc	T,E	PS	175R		110P	6,240.1	3- 5-54	B62; Dr; FD; L; WS; WSR
1	11ldac	2,100	1,700	do	1932	55.5	48	Ql	N	PS			32.4	6,230	4-11-62	U(1953-58); WL(2-27-58)36.0
1	11ldbb	1,700	1,700	Douglas County Fairgrounds												
1	11ldbd	1,600	1,400	Town of Castle Rock.	1932	90R	48	Ql	T,E	S,Irr	75R		35	6,247	2-27-58	Dr
2	16cbdd	2,240	4,940	J. Abercrombie	1953	9,926R			T,E	PS	200R	6.8	46.8P	6,248	6-29-59	Dr; FD; WL(2-58)33; WS; WSR
2	28aad	4,900	300	Continental Divide Racway.	1959	506R	8 to 6	Tkdu	N	Oil				6,569		Dr; EL; L
									S,E	Com	838R		110	6,494.3	6-10-59	Dr; WL1-7; L; Tch278-506

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks	
1	C8-68-labcc	4,200	2,450	Curtis Bros.	1936	48R	36 to 18	Qpp,Qb,Ql	T,G	Irr	570M	14.1	1/4	2.9	5,880.4	4-11-62 B46; Dr; GE; L; P18-40; ML(7-6-59)5.4
2	5bcb4	3,500	4,820	J. Williams	1945	25R	60	PC	P,E IrrL	2R	.	.	3.2	6,850	7-8-61 D; FD; Gr. Converted spring	
2	6cadd	1,650	2,800	Conservative Baptist Camping Assn.	1935	35R	4	PC	J,E	Inst.S	10E	.	.	2	7,025	7-8-61 Dr; Gr; L
C8-69-																
2	1cbbb	2,540	5,130	L. Anderson	1945	14.1	48	PC	J,E	D	3E	.	.	8.9	7,305	7-3-61 D; Gr
2	1cbbb2	2,450	5,000	do	1954	18R	36	PC	J,E	D	5E	.	.	11.0	7,315	7-3-61 Dr; Gr; P12-1B
2	jdcaa	1,260	1,640	U.S. Government.	.	Spring	.	PC	Cyl,E	D	7E	.	.	.	7,530	7-3-61 FD; Gt

Altitudes shown are for land surface at the well or test-hole site. Formational names have been added to the logs by the authors, and drillers' terms have been retained where possible. Information shown in brackets, [ ], was taken from electric or other logs of the same well. Thickness is in feet. Depth is in feet below land surface. Yield is in gpm (gallons per minute).

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CI-65-7cbb. Alt. 5,052 ft.					
Eolian sand:					
Sand	6	6	CI-66-4cdcd.--Continued		
Verdos Alluvium:			Clay and shale	69	279
Clay	5	11	Lower conglomerate:	5	284
Clay, sandy	4	15	Sand	45	329
Sand	18	33	Clay	15	344
Clay	11	44	Clay	16	360
Dawson Formation (upper part):			CI-66-4dcad. Alt. 5,110 ft.		
Shale	46	90	Eolian sand:		
Shale, sandy	10	100	Sand	25	25
Shale, soft, gray	63	163	Clay	2	27
Dawson Formation (lower part):			Sand	7	34
Middle conglomerate:			Clay	6	40
Sand	19	182	Sand	2	42
Shale	4	186	Dawson Formation (upper part):		
CI-65-15baab. Alt. 5,219 ft.					
Eolian sand:					
Sand	16	16	Clay, hard	11	53
Clay	7	23	Shale	47	100
Sand	51	74	Dawson Formation (lower part):		
Dawson Formation (upper part):			Middle conglomerate:		
Clay	6	80	Sandstone	8	108
Shale	13	93	Shale	2	110
Sandstone, soft	17	110	Sandstone	14	124
Shale	14	124	Shale	38	162
Sand	6	130	Sand	24	186
Shale	4	134	Shale	2	188
Sand	4	138	CI-66-4dccc. Alt. 5,105 ft.		
Shale	16	154	Eolian sand:		
Rock	1	155	Sand, fine	30	30
Sand, dirty	7	162	Dawson Formation (upper part):		
Rock	5	167	Clay, yellow	15	45
Shale	9	176	Clay, gray	8	53
Dawson Formation (lower part):					
Middle conglomerate:			Rock	2	55
Sand	48	224	Clay, gray and yellow	22	77
Shale	4	228	Rock	1	78
CI-65-23caa. Alt. 5,148 ft.					
Piney Creek Alluvium:					
Clay, sandy	6	6	Clay, brown and gray	17	95
Verdos Alluvium:			Rock	2	97
Gravel	2	8	Dawson Formation (lower part):		
Clay	3	11	Clay, sandy, gray and		
Gravel	43	54	brown (Middle conglomerate, 97 to 170 feet)	25	122
Dawson Formation:			Shale, blue	18	160
Clay	2	56	Sandstone	10	170
Shale	1	57	Shale, blue	190	360
CI-65-26bdd. Alt. 5,172 ft.					
Piney Creek Alluvium:					
Soil	7	7	Lower conglomerate:		
Verdos Alluvium:			Sandstone	4	364
Gravel	23	30	Shale, blue	16	380
Clay	5	35	Sandstone	3	383
Gravel	9	44	Laramie Formation:		
Clay	1	47	Shale, blue	36	419
Gravel	17	64	Shale	301	720
Clay	2	66	[Well plugged back to 420 feet.]		
Rocks	1	67	CI-66-5abba. Alt. 5,005 ft.		
Dawson Formation:			No record		
Shale	1	68	Dawson Formation (upper part):		
CI-65-27ddd. Alt. 5,188.5 ft.					
Piney Creek Alluvium:					
Clay, sandy	9	9	Shale	10	60
Verdos Alluvium:			Sand	7	67
Gravel	17	26	Shale	5	72
Clay	6	32	Shale, light-blue	8	80
Gravel	9	41	Shale, hard, black	16	96
Rock	1	42	Dawson Formation (lower part):		
Clay	4	46	Sandstone, silty, clayey,		
Rock	2	48	white (Middle conglomerate, 96 to 101 feet)	7	103
Clay, sandy	18	66	Sandstone	4	107
Dawson Formation (upper part):			Shale	19	122
Shale and sand	18	84	Sandstone	19	131
Rock	2	86	Shale	4	170
Dawson Formation (lower part):					
Middle conglomerate:			Rock, soft	4	174
Sand	36	122	Shale	4	178
Shale	2	124	Rock, hard	1	179
Sand	22	146	Shale, hard	48	227
Rock	1	147	Shale, sandy, sticky	8	235
Sand	5	152	Lower conglomerate:		
Shale	14	166	Sand	15	250
CI-66-4cdcd. Alt. 5,075 ft.					
Eolian sand:					
Sand	15	15	Shale	7	257
Dawson Formation (upper part):			CI-66-5bbbc. Alt. 4,972 ft.		
Clay	10	25	Piney Creek Alluvium:		
Sandstone	6	31	Soil and clay	8	8
Clay, brown and yellow,			Broadway and Louviers Alluvium,		
and shale	14	45	undifferentiated:		
Dawson Formation (lower part):			Sand and gravel	27	35
Sandstone (Middle conglomerate, 45 to 210 feet)	52	97	CI-66-5abbc. Alt. 4,969 ft.		
Clay, blue, and sandstone	85	182	Broadway Alluvium:		
Shale, sandy, contains streaks of sandstone	28	210	Soil	4	4
			Gravel	5	9
			Louviers Alluvium:		
			Clay	2	11
			Gravel	25	36
			Rock, sandy	3	39
			Dawson Formation:		
			Shale	8	47
			CI-66-6acac. Alt. 4,975 ft.		
			Piney Creek Alluvium:		
			Clay	5	5
			Broadway Alluvium:		
			Gravel	12	17
			CI-66-6acac.--Continued		
			Louviers Alluvium:		
			Clay	7	24
			Gravel	12	36
			Clay	1	37
			Dawson Formation (upper part):		
			Sandstone	3	40
			Shale	26	66
			Rock	1	67
			Shale, sandy	5	73
			Shale, blue	43	116
			Dawson Formation (lower part):		
			Sand (Middle conglomerate, 116 to 152 feet)	11	127
			Shale	18	145
			Sandstone	7	152
			Shale	44	196
			Rock	1	197
			Shale, gray	13	230
			Shale, brown	3	238
			Lower conglomerate:		
			Chalk, white	5	244
			Sandstone	18	262
			Laramie Formation:		
			Shale, gray	54	316
			Rock	2	318
			Shale, gray	8	326
			Rock	1	327
			Shale, gray	18	345
			Rock, soft	2	347
			Shale, hard, blue	55	402
			Rock	3	405
			Shale	33	438
			Rock	2	440
			Coal	3	443
			Shale, brown	5	448
			Shale, gray	13	461
			Shale, soft, white	9	470
			Shale, gray	15	505
			Rock	1	506
			Shale, gray	20	526
			Rock	2	528
			Shale, blue	19	547
			Coal	4	551
			Shale	11	562
			Coal	6	568
			Shale, brown	2	570
			Shale, blue	10	580
			Rock	2	582
			Shale, brown	8	590
			Rock	1	591
			Shale, gray	41	632
			Shale, white	6	638
			Rock	2	640
			Sand	12	652
			Shale	28	680
			Coal	4	684
			Shale, brown	4	688
			Coal	4	692
			Shale	3	695
			Rock	1	698
			Shale	2	700
			Coal	4	704
			Sand, fine	12	716
			Shale, brown	5	721
			Rock	2	723
			Shale, soft, gray	16	739
			CI-66-6cdcd. Alt. 4,961 ft.		
			Broadway and Louviers Alluvium		
			undifferentiated:		
			Gravel	28	28
			Clay	1	29
			Sand, blue	1	30
			Dawson Formation:		
			Sandstone, gray	1	31
			Clay, gray	3	34
			Shale	1	35
			CI-66-6dbbc. Alt. 4,976 ft.		
			Broadway Alluvium:		
			Soil	2	2
			Gravel	8	10
			Sand	9	19
			Louviers Alluvium:		
			Clay	3	22
			Gravel	16	38
			Clay, sandy	3	41
			Dawson Formation:		
			Shale	1	42
			CI-66-6dcbc. Alt. 4,977 ft.		
			Broadway Alluvium:		
			Clay	3	3
			Gravel	4	4
			Sand	12	19
			Dawson Formation:		
			Clay	4	23
			Shale	17	40

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>CI-66-7abba.</b> Alt. 4.982 ft.		<b>CI-66-12bbcb2.</b> --Continued		<b>CI-66-17aab.</b> --Continued	
Piney Creek Alluvium:		Dawson Formation (lower part):		Lower conglomerate:	
Surface	5 6	Middle conglomerate:		Sandstone	5 243
Clay, gray	16 22	Rock: contains some gravel		Clay	12 255
Louviers Alluvium:			17 137	Sand	5 260
Sand	5 27	<b>CI-66-12bbcb1.</b> Alt. 5.042.0 ft.		Clay	15 275
Clay, gray	11 38	Eolian sand:		Shale, sandy	5 280
Sand and clay	22 50	Sand		Clay	20 300
<b>CI-66-7bcab.</b> Alt. 4.978 ft.		Verdos Alluvium:		<b>CI-66-17cbcc.</b> Alt. 5.028 ft.	
Piney Creek Alluvium:		Clay		Eolian sand:	
Topsoil, silty, gray	4 4	Sand		Sand, fine	5 5
Broadway and Louviers Alluvium, undifferentiated:		Clay		Louviers Alluvium:	
Sand, medium, to fine gravel	5 10	Sand		Clay, sandy	11 16
Sand, coarse, and fine gravel	5 15	Clay		Gravel	10 26
Gravel, fine, very clean	15 30	Gravel		Clay	11 37
Sand, coarse, and fine gravel	5 35	Gravel		Sand, fine	2 39
Sand, coarse, gravelly, and fine gravel	19 54	Dawson Formation:		Dawson Formation:	
Dawson Formation:		Shale		Clay	1 40
Sandstone, hard, cemented, shaly	.6 54.6	<b>CI-66-12cbba.</b> Alt. 5.041 ft.		Shale	3 43
<b>CI-66-7cbba.</b> Alt. 4.983 ft.		Eolian sand:		<b>CI-66-18aac.</b> Alt. 4.993.4 ft.	
Piney Creek Alluvium:		Sand		Broadway and Louviers Alluvium, undifferentiated:	
Soil	4 4	Verdos Alluvium:		Clay	3 3
Clay, hard	14 18	Clay		Gravel	27 30
Broadway Alluvium:		Sand		Dawson Formation:	
Sand, fine	14 32	Clay		Clay	9 38
Louviers Alluvium:		Gravel		Shale	4 42
Quicksand	6 38	Clay		<b>CI-66-18dbcc.</b> Alt. 5.005 ft.	
Gravel, coarse	19 57	Gravel		Broadway Alluvium:	
Dawson Formation:		Shale		Clay	3 3
Shale, blue	3 60	<b>CI-66-12dccc.</b> Alt. 5.052 ft.		Gravel	11 14
<b>CI-66-7dbba.</b> Alt. 4.987 ft.		Eolian sand:		Louviers Alluvium:	
Broadway Alluvium:		Clay		Clay	4 18
Gravel	11 11	Sand, fine		Gravel	27 45
Louviers Alluvium:		Verdos Alluvium:		<b>CI-66-20cddd.</b> Alt. 5.050 ft.	
Clay	2 13	Clay		Eolian sand:	
Gravel	17 30	Sand, fine		Soil, sandy	8 8
Dawson Formation:		Clay		Sand	4 12
Shale	2 32	Sand, fine		Louviers Alluvium:	
<b>CI-66-7dccb.</b> Alt. 4.992 ft.		Clay		Clay	2 14
Broadway and Louviers Alluvium, undifferentiated:		Sand, hard		Sand	10 24
Topsoil	4 4	Dawson Formation:		Dawson Formation (upper part):	
Gravel	57 61	Shale		Shale	16 40
<b>CI-66-9cccc.</b> Alt. 5.050 ft.		<b>CI-66-13bbcd.</b> Alt. 5.041.5 ft.		Sandstone	5 45
Eolian sand:		Eolian sand:		Shale	100 145
Sand	10 10	Clay		Dawson Formation (lower part):	
Clay	4 14	Sand, fine		Middle conglomerate:	
Sand	12 26	Verdos Alluvium:		Sand	15 160
Dawson Formation (upper part):		Clay		Shale	10 170
Clay	22 48	Gravel		Sand	5 176
Shale	88 136	Clay		Shale	7 183
Dawson Formation (lower part):		Gravel		<b>CI-66-21caaa.</b> Alt. 5.090 ft.	
Middle conglomerate:		Clay		Eolian sand:	
Sand	19 155	Gravel		Sand	11 11
Shale	12 167	Dawson Formation:		Dawson Formation (upper part):	
<b>CI-66-11cddc.</b> Alt. 5.080 ft.		Clay		Clay, hard	41 52
Eolian sand:		Shale		Shale	6 58
Sand, fine	11 11	<b>CI-66-14dccc.</b> Alt. 5.068.0 ft.		Shale, brown	5 63
Verdos Alluvium:		Eolian sand:		Sand	7 70
Clay	34 15	Sand		Shale, sandy, brown	6 76
Gravel and rock	5 40	Verdos Alluvium:		Shale, blue	56 142
Dawson Formation (upper part):		Clay		Shale, sandy, brown	4 146
Clay	9 48	Clay		Dawson Formation (lower part):	
Sandstone, hard	14 62	Gravel		Middle conglomerate:	
Clay, hard	2 64	Gravel		Sand	14 160
<b>CI-66-12abdc.</b> Alt. 5.020 ft.		Dawson Formation (upper part):		Shale	6 166
Eolian sand:		Rock		Shale, soft, gray	14 180
Sand	16 16	Sandstone		Sand	10 210
Verdos Alluvium:		<b>CI-66-15dcba.</b> Alt. 5.090 ft.		Shale, gray	9 219
Clay	6 22	Eolian sand:		<b>CI-66-21cddc.</b> Alt. 5.098 ft.	
Sand	18 40	Sand, fine		Eolian sand:	
Gravel	4 44	Verdos Alluvium:		Sand	8 8
Dawson Formation (upper part):		Clay		Dawson Formation (upper part):	
Shale, sandy	16 60	Sand and gravel		Clay	19 34
Shale, hard	52 112	Clay		Sand	2 36
Dawson Formation (lower part):		Sand		Sandstone	14 50
Middle conglomerate:		Dawson Formation (upper part):		Sandstone, hard	20 70
Sand	41 153	Sand and gravel, clayey, soft, white		Shale	15 85
Shale	7 160	<b>CI-66-17aabb.</b> Alt. 5.035 ft.		Sandstone, blue	20 105
<b>CI-66-12bbcb2.</b> Alt. 5.035 ft.		Eolian sand and Louviers Alluvium, undifferentiated:		Shale, hard	55 160
No sample		Overburden		Dawson Formation (lower part):	
Verdos Alluvium:		Dawson Formation (upper part):		Middle conglomerate:	
Gravel	1 30	Clay, blue and shale		Sandstone, soft	10 170
Clay	5 35	Dawson Formation (lower part):		Shale, blue	20 190
Gravel	10 65	Sandstone (Middle conglomerate, 72 to 106 feet)		Sandstone, soft	10 220
Dawson Formation (upper part):		Clay		Shale	10 230
Rock	30 35	Shale, sandy		<b>CI-66-21cacb.</b> Alt. 5.101.0 ft.	
Shale	25 120	Clay		Eolian sand:	
<b>CI-66-12bbcb2.</b> Alt. 5.035 ft.		Clay, sandy		Sand, fine	19 19
No sample		Clay and shale		Verdos Alluvium:	
Verdos Alluvium:		<b>CI-66-17aabb.</b> Alt. 5.035 ft.		Clay	2 21
Gravel	1 30	Eolian sand and Louviers Alluvium, undifferentiated:		Sand, fine	17 38
Clay	5 35	Overburden		Clay	15 53
Gravel	10 65	Dawson Formation (upper part):		Clay and gravel layers	10 63
Dawson Formation (upper part):		Clay, blue and shale		Clay	5 68
Rock	30 35	Dawson Formation (lower part):			
Shale	25 120	Sandstone (Middle conglomerate, 72 to 106 feet)			
		Clay			
		Shale, sandy			
		Clay			
		Clay, sandy			
		Clay and shale			

Table 1.--Logs of wells and test holes--Continued

	Thick- ness	Depth		Thick- ness	Depth		Thick- ness	Depth
<b>Cl-66-11gash.--Continued</b>			<b>Cl-66-11agdd.--Continued</b>			<b>Cl-67-1agdd.--Continued</b>		
Clay, rocky . . . . .	6	74	Sand, very fine, clayey, wet. . . . .	5	55	Shale, hard, blue. . . . .	20	606
Clay, sandy . . . . .	4	78	Dawson Formation (upper part):			Rock . . . . .	1	507
Gravel. . . . .	2	80	Shale, finely silty, gray, noncalcareous. . . . .	3	58	Shale. . . . .	9	616
Dawson Formation:						Coal . . . . .	3	619
Shale, blue . . . . .	4	84				Shale. . . . .	10	629
Shale . . . . .	2	86				Rock . . . . .	1	630
<b>Cl-66-10agdd. Alt. 5,055 ft.</b>			<b>Cl-66-11agbb. Alt. 5,089 ft.</b>			Shale, sandy . . . . .	9	638
Eolian sand:			Eolian sand:			Shale, soft, gray. . . . .	17	655
Sand, fine. . . . .	7	7	Silt, finely sandy, slightly clayey, noncalcareous, friable even when wet . . . . .	8	8	Rock . . . . .	1	656
Louviers Alluvium:			Verdos Alluvium:			Shale, hard. . . . .	16	672
Clay. . . . .	21	28	Silt, fine . . . . .	12	20	Coal . . . . .	9	681
Gravel. . . . .	9	37	Sand, medium to coarse, loose, angular to subangular; contains very fine gravel and cobbles. . . . .	13	33	Shale. . . . .	13	694
Sand, fine. . . . .	13	50	Dawson Formation (upper part):			Rock . . . . .	1	695
Rock. . . . .	2	52	Rock, hard (water under artesian pressure) . . . . .	3	36	Shale, black . . . . .	17	712
Dawson Formation:			Shale, dark-gray, non- calcareous, and cal- careous yellowish-gray clay . . . . .	6	42	Rock . . . . .	2	714
Shale . . . . .	1	53				Sandrock . . . . .	5	720
<b>Cl-66-11agaa. Alt. 5,081 ft.</b>			<b>Cl-67-1agaa. Alt. 4,960 ft.</b>			Shale, gray. . . . .	18	758
Eolian sand:			Finney Creek Alluvium:			Coal . . . . .	4	762
Sand, fine, loose . . . . .	4	4	Topsoil. . . . .	5	5	3 sandstone:		
Louviers Alluvium:			Louviers Alluvium:			Sand . . . . .	25	787
Sand, very fine to fine, angular to subangular, loose . . . . .	9	13	Gravel . . . . .	20	25	Shale. . . . .	4	791
Sand, very fine to fine, silty, friable, cal- careous . . . . .	7	20	Dawson Formation:			Sand . . . . .	10	801
Silt, sandy, brown. . . . .	4	24	Clay . . . . .	2	27	Shale, sandy . . . . .	4	101
<b>Cl-66-11agdd.</b>			Shale. . . . .	3	30	Shale, blue. . . . .	17	118
Eolian sand:			<b>Cl-67-1agdd. Alt. 4,960 ft.</b>			Dawson Formation (lower part):		
Sand, medium, dark-green to brown. . . . .	5	5	Post-Finney Creek alluvium and Louviers Alluvium, undifferentiated:			Sandstone, hard, white (Middle conglomerate, 118 to 162 feet.) . . . . .	9	127
Sand, medium, brown . . . . .	5	10	Gravel . . . . .	18	18	Shale, blue. . . . .	14	161
Verdos Alluvium:			Clay . . . . .	2	20	Rock . . . . .	1	162
Sand, fine to medium, slightly clayey, sub- angular, yellowish- gray. . . . .	3	13	Gravel . . . . .	11	31	Shale, blue. . . . .	100	262
Clay, slightly sandy, pinkish-gray; contains slightly weathered volcanic ash. . . . .	3	16	Dawson Formation:			Shale, sandy . . . . .	8	270
Sand, very fine, clayey; contains slightly weathered volcanic ash . . . . .	3	19	Shale. . . . .	52	83	Shale, hard. . . . .	7	277
<b>Cl-66-11agda. Alt. 5,100 ft.</b>			Shale, sandy . . . . .	3	86	Shale, sandy . . . . .	6	283
Eolian sand:			Shale, gray. . . . .	23	109	Lower conglomerate:		
Soil, sandy . . . . .	8	8	Sand . . . . .	4	113	Sand . . . . .	4	287
Verdos Alluvium:			Laramie Formation:			Shale, sandy . . . . .	3	290
Clay, white . . . . .	12	20	Shale. . . . .	142	255	Rock . . . . .	1	291
Gravel. . . . .	22	42	Rock . . . . .	2	257	Sand . . . . .	7	298
Rock. . . . .	1	43	Shale. . . . .	39	296	Shale. . . . .	8	306
Gravel. . . . .	2	45	Shale, sandy . . . . .	6	302	Sandstone. . . . .	3	309
Dawson Formation:			Rock . . . . .	3	303			
Shale . . . . .	1	46	Shale. . . . .	71	376	<b>Laramie Formation:</b>		
<b>Cl-66-11agac. Alt. 5,099 ft.</b>			Coal . . . . .	4	380	Shale. . . . .	19	328
Eolian sand:			Shale. . . . .	24	404	Shale, soft, brown . . . . .	9	337
Sand, very fine, slightly clayey, dark-brown. . . . .	3	1	Rock . . . . .	2	406	Shale, blue. . . . .	23	360
Silt, sandy . . . . .	4	7	Shale, sandy . . . . .	12	418	Shale, brown . . . . .	23	383
Verdos Alluvium:			Rock . . . . .	3	421	Rock . . . . .	2	385
Sand, medium to coarse, slightly clayey . . . . .	5	12	Sandstone. . . . .	5	426	Shale, soft, gray. . . . .	20	405
Sand, fine, uniform, subangular, slightly clayey, yellowish-gray . . . . .	5	12.5	Shale, soft, gray. . . . .	44	470	Shale, hard. . . . .	3	408
Sand, medium to very coarse, clayey (water) . . . . .	7.5	20	Coal . . . . .	1	471	Shale, soft, gray. . . . .	19	427
Sand, very fine to fine, poorly-sorted, clayey and silty; contains volcanic ash. . . . .	25	45	Shale, gray. . . . .	16	507	Coal, soft . . . . .	2	429
Dawson Formation (upper part):			Rock . . . . .	3	510	Shale, soft, gray. . . . .	12	441
Conglomerate, limy, hard at 45 feet . . . . .			Shale, sandy . . . . .	7	517	Shale, hard. . . . .	2	443
<b>Cl-66-11agdd. Alt. 5,120 ft.</b>			Shale, gray. . . . .	3	520	Shale, gray. . . . .	15	458
Eolian sand:			Coal . . . . .	1	521	Rock, hard . . . . .	1	459
Sand, fine, fairly uniform, angular to subangular, slightly clayey, brown . . . . .	7	7	Shale, gray. . . . .	46	567	Sand . . . . .	6	465
Sand, fine, clayey, brown . . . . .	3	10	Rock . . . . .	1	568	Shale, brown . . . . .	2	467
Verdos Alluvium:			Shale, gray. . . . .	22	590	Shale, hard, blue. . . . .	3	476
Clay, silty and sandy, limy, plastic, yellow- ish gray. . . . .	5	15	Sand . . . . .	5	595	Sandstone. . . . .	4	480
Clay, very limy, plastic, yellowish-gray; contains streaks of caliche. . . . .	5	20	Shale, gray. . . . .	4	599	Shale, gray. . . . .	9	499
Clay, silty and slightly sandy, semiplastic, limy, yellowish-gray . . . . .	5	25	Rock . . . . .	1	600	Rock . . . . .	1	490
Clay, silty and slightly sandy; contains very little limy material . . . . .	10	35	Coal . . . . .	2	602	Sand . . . . .	14	504
Clay, silty to finely sandy, very limy, yellowish-gray. . . . .	15	50	Shale, gray. . . . .	16	618	Shale, gray. . . . .	3	507
			Rock . . . . .	2	620	Rock . . . . .	3	510
			Shale, gray. . . . .	41	661	Sand . . . . .	6	516
			Sand . . . . .	11	672	Shale, gray. . . . .	4	520
			Shale, gray. . . . .	17	689	Rock . . . . .	7	527
			Coal . . . . .	4	693	Shale. . . . .	7	534
			<b>Cl-67-1agdd. Alt. 5,175 ft.</b>			Shale, soft, brown . . . . .	13	547
			Dawson Formation:			Shale, hard. . . . .	25	572
			No record . . . . .	272	272	Rock . . . . .	1	573
			Laramie Formation:			Shale, gray. . . . .	14	587
			Shale. . . . .	57	129	Shale, sandy . . . . .	3	590
			Rock . . . . .	1	130	Sand . . . . .	6	596
			Shale. . . . .	9	139	Clay, gray . . . . .	10	606
			Shale, hard. . . . .	57	196	Rock . . . . .	2	608
			Rock . . . . .	2	198	Sand . . . . .	6	614
			Shale. . . . .	10	408	Shale. . . . .	3	617
			Coal . . . . .	2	410	Rock . . . . .	2	619
			Shale. . . . .	21	431	Sandstone. . . . .	4	623
			Shale, sandy . . . . .	5	436	Shale, gray. . . . .	5	628
			Shale, hard, gray. . . . .	64	500	Shale, soft, brown . . . . .	4	632
			Shale, sandy . . . . .	11	511	Shale, soft, gray. . . . .	9	641
			Rock . . . . .	2	513	Rock . . . . .	1	642
			Shale, gray. . . . .	25	538	Shale, gray. . . . .	28	670
			Shale, soft, black . . . . .	2	540	Coal, soft . . . . .	3	673
			Shale, gray. . . . .	5	545	Shale, gray. . . . .	4	677
			Rock . . . . .	1	546	Rock . . . . .	1	678
			Shale, gray. . . . .	18	584	Coal . . . . .	1	679
			Rock . . . . .	2	586	Shale. . . . .	15	694
						Coal . . . . .	4	698

Table 1.--Logs of wells and test holes --Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>Cl-67-4ccca.</b> --Continued		<b>Cl-67-8dccc.</b> --Continued		<b>Cl-67-20bdcc.</b> Alt. 5,321 ft.	
Shale, gray . . . . .	5 704	Shale, weathered, rusty- yellow and brown . . . . .	2 70	Overburden . . . . .	60 60
Coal . . . . .	5 709	Shale, gray . . . . .	7 77	Dawson Formation (upper part):	
Coal, rock, hard . . . . .	2 711	Sand, clean, gray . . . . .	3 95	Clay, blue, and shale . . . . .	33 33
Shale, soft, brown . . . . .	4 715	Shale, gray . . . . .	7 92	Sand, coarse, interbedded with sandy shale . . . . .	
Coal, hard . . . . .	2 717	Coal . . . . .	5 92.5	Upper conglomerate . . . . .	
Shale, soft, gray . . . . .	15 732	Sand, gray . . . . .	8.5 101	33 to 197 feet . . . . .	104 197
Rock . . . . .	3 735	Shale . . . . .	14 115	Shale . . . . .	119 316
Shale, hard . . . . .	40 775	Sand, dirty, gray, and thin beds of shale . . . . .	75 190	Dawson Formation (lower part):	
Sand . . . . .	3 778	Shale, sandy, gray . . . . .	31 221	Sandstone and sand, interbedded with sandy shale [Middle conglom- erate, 316 to 461 feet.] . . . . .	145 461
Shale . . . . .	41 819	Shale, sandy, and thin beds of fine sand . . . . .	19 240	Shale and siltstone . . . . .	114 575
Shale, black . . . . .	3 822	Shale, soft, gray . . . . .	80 320	Lower conglomerate:	
B sandstone:		Lower conglomerate:		Sandstone and sand, interbedded with sandy shale . . . . .	55 640
Sand . . . . .	16 838	Sand, gray . . . . .	5 325	Laramie Formation:	
Shale, hard . . . . .	4 842	Shale, sandy, gray . . . . .	15 340	Clay, shale, and thin streaks of coal . . . . .	98 738
Sand . . . . .	28 870	Sand, gray . . . . .	5 345	Sandrock . . . . .	4 742
Rock . . . . .	2 872	Shale, sandy, gray, and thin beds of dirty sand . . . . .	35 380	Shale . . . . .	188 930
B and A sandstones of the Laramie Formation and Milliken Sandstone Member of the Fox Hills Sandstone, undifferentiated:		Laramie Formation:		Shale, sandy, and sandrock . . . . .	15 945
Sand . . . . .	154 1,026	Shale, gray . . . . .	20 400	Shale . . . . .	20 965
Shale, sandy . . . . .	28 1,054	Shale, dry, crumbly . . . . .	115 515	Shale, sandy . . . . .	50 1,015
<b>Cl-67-5dccc.</b> Alt. 5,170 ft.		Rock . . . . .	2 517	Shale and streaks of coal . . . . .	15 1,030
Dawson Formation (upper part):		Shale, dry, crumbly . . . . .	83 600	B sandstone:	
Topsoil and clay . . . . .	17 37	Sandstone . . . . .	3 603	Sand and sandy clay . . . . .	15 1,065
Shale, blue . . . . .	6 43	Shale, carbonaceous, dark-colored . . . . .	195 798	Sandrock . . . . .	5 1,070
Shale, gray . . . . .	42 85	B and A sandstones of the Laramie Formation and Milliken Sandstone Member of the Fox Hills Sandstone, undifferentiated:		B and A sandstones, undifferentiated:	
Dawson Formation (lower part):		Sandstone . . . . .	2 800	Sand and sandy clay . . . . .	115 1,185
Middle conglomerate:		Clay, soft, sandy, light- colored . . . . .	50 850	Shale . . . . .	17 1,202
Sand, white, and gray shale . . . . .	32 117	Clay, soft, sandy, light- colored, and thin beds of gray shale . . . . .	120 970	<b>Cl-67-22badd.</b> Alt. 5,060 ft.	
Shale, gray . . . . .	9 126	Shale, gray . . . . .	25 995	Dawson Formation (lower part):	
<b>Cl-67-6ccba.</b> Alt. 5,100 ft.		Sandstone, hard, gray . . . . .	1 996	Surface . . . . .	4 4
Piney Creek Alluvium:		Shale, soft, gray . . . . .	9 1,005	Clay, brown . . . . .	38 42
Overburden . . . . .	35 35	<b>Cl-67-9abab.</b> Alt. 5,148 ft.		Clay, yellow . . . . .	140 182
Dawson Formation (upper and lower parts, undifferen- tiated):		Dawson Formation (upper part):		Lower conglomerate:	
Sand . . . . .	30 65	Clay . . . . .	18 18	Sand, white . . . . .	18 200
Clay, blue . . . . .	65 130	Clay, sandy . . . . .	9 27	<b>Cl-67-24cccc.</b> Alt. 5,018 ft.	
Clay and shale . . . . .	94 224	Clay, chalky, hard . . . . .	18 45	Broadway Alluvium:	
Coal blossom, and clay . . . . .	105 329	Clay, sandy . . . . .	4 54	Clay . . . . .	1 1
Clay and shale; con- tains streaks of coal . . . . .	113 442	Sandstone . . . . .	26 80	Gravel . . . . .	9 12
Rock . . . . .	3 445	Clay, hard . . . . .	6 86	Louviers Alluvium:	
Clay and shale . . . . .	47 492	<b>Cl-67-11bbab.</b> Alt. 5,062 ft.		Clay . . . . .	6 18
No sample . . . . .	5 497	Dawson Formation (upper part):		Gravel . . . . .	18 36
Sandstone . . . . .	44 541	Topsoil and clay . . . . .	12 12	Clay . . . . .	2 38
Laramie Formation:		Sand, fine . . . . .	6 18	<b>Cl-67-25abbb.</b> Alt. 5,022 ft.	
Clay and shale . . . . .	4 545	Mud, black . . . . .	28 46	Broadway and Louviers Alluvium, undifferentiated:	
Coal . . . . .	13 558	Shale, gray . . . . .	26 72	Clay . . . . .	7 7
Clay and shale . . . . .	6 564	Hardpan . . . . .	31 103	Gravel . . . . .	27 34
Coal . . . . .	7 571	Dawson Formation (lower part):		Clay . . . . .	2 36
Clay and shale . . . . .	3 574	Middle conglomerate:		Gravel . . . . .	9 45
Coal . . . . .	42 616	Sand, white, and gray shale . . . . .	19 122	Clay . . . . .	1 46
Clay and shale . . . . .	6 622	Shale, gray . . . . .	5 127	<b>Cl-67-26dbbb.</b> Alt. 5,011 ft.	
Shale, sandy . . . . .	13 635	<b>Cl-67-123ddd.</b> Alt. 4,977 ft.		Post-Piney Creek alluvium and Louviers Alluvium, undiffer- entiated:	
Clay . . . . .	13 648	Piney Creek Alluvium:		Gravel . . . . .	28 28
Sand and shale; sandy clay . . . . .	12 660 38 698	Clay, sandy . . . . .	2 2	Dawson Formation (upper and lower parts, undifferentiated):	
B sandstone:		Louviers Alluvium:		Clay . . . . .	4 12
Sand and sandstone . . . . .	9 707	Gravel . . . . .	38 40	Shale . . . . .	15 67
Clay . . . . .	11 718	Dawson Formation (lower part):		Sandstone . . . . .	5 72
Sand and shale; sandy clay . . . . .	47 765	Clay . . . . .	3 43	Shale . . . . .	25 97
<b>Cl-67-7ccac.</b> Alt. 5,165 ft.		Shale . . . . .	10 73	Shale, sandy . . . . .	9 106
Dawson Formation (upper part):		Shale, soft, gray . . . . .	27 100	Shale, brown . . . . .	9 115
Clay . . . . .	2 2	Sand, dirty . . . . .	12 112	Shale, gray . . . . .	57 172
Dawson Formation (lower part):		Shale, brown . . . . .	20 132	Shale, sandy . . . . .	12 184
Middle conglomerate:		Lower conglomerate:		Dawson Formation (lower part):	
Gravel . . . . .	31 33	Sand . . . . .	16 148	Lower conglomerate:	
Clay . . . . .	1 34	Shale . . . . .	8 156	Sand . . . . .	8 192
Shale . . . . .	3 37	<b>Cl-67-12ccdb.</b> Alt. 4,969.0 ft.		Shale . . . . .	71 263
<b>Cl-67-8bddd.</b> Alt. 4,955 ft.		Post-Piney Creek alluvium:		Rock . . . . .	1 264
Dawson Formation (lower part):		Clay, sandy . . . . .	5 5	Shale . . . . .	3 267
Clay and topsoil . . . . .	27 27	Louviers Alluvium:		Rock . . . . .	1 268
Mud, heavy . . . . .	19 46	Gravel . . . . .	24 29	Shale . . . . .	182 450
Sand, fine . . . . .	2 48	Clay . . . . .	1 30	Rock . . . . .	3 453
Shale, gray . . . . .	18 86	<b>Cl-67-13badc2.</b> Alt. 4,970 ft.		Shale, soft, white . . . . .	4 457
Lower conglomerate:		Piney Creek Alluvium:		Sand . . . . .	3 460
Sand, white, and gray shale . . . . .	23 109	Clay . . . . .	2 2	Laramie Formation:	
Shale, gray . . . . .	3 112	Louviers Alluvium:		Shale . . . . .	94 554
<b>Cl-67-8dbcc.</b> Alt. 5,162 ft.		Gravel . . . . .	19 21	Rock . . . . .	2 556
Dawson Formation (upper part):		Dawson Formation:		Shale . . . . .	26 582
Topsoil . . . . .	2 2	Sandstone . . . . .	1 22	Rock . . . . .	2 584
Sand and clay . . . . .	20 22	Shale . . . . .	3 25	Shale . . . . .	9 593
Gravel, small . . . . .	5 22.5	<b>Cl-67-13badc2.</b> Alt. 4,970 ft.		Rock . . . . .	2 595
Shale, weathered, green . . . . .	27.5 50	Piney Creek Alluvium:		Shale, hard . . . . .	16 611
Dawson Formation (lower part):		Clay . . . . .	2 2	Rock . . . . .	2 613
Sand, coarse, soft, yellow [Middle conglom- erate, 50 to 190 feet.] . . . . .	18 68	Louviers Alluvium:		Sand, fine . . . . .	29 642
		Gravel . . . . .	19 21	Shale . . . . .	18 660



Table 1.--Logs of wells and test holes --Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>Cl-67-12bbca.</b> Alt. 5,172 ft.					
Overburden.	68	Iron rock.	1	Sand	10
Dawson Formation (upper part):		Slate, gray.	147	Shale.	10
Clay, blue.	2	Iron rock.	2	Sand.	10
Sand.	5	Slate, gray.	14	Shale.	10
Clay, blue, and shale	71	Iron rock.	1		
Clay, sandy.	6	Slate, gray.	63	Sand [B sandstone, 666	
Clay and shale.	114	Coal.	6	to 740 feet.].	74
Dawson Formation (lower part):		Slate, gray.	15	Shale (A sandstone,	
Sand and sandstone		Coal, smut.	2	748 to 875 feet.].	135
[Middle conglomerate,		B and A sandstones, undiffer-			
266 to 104 feet.].	15	entiated:		<b>Cl-68-18ddad.</b> Alt. 5,320 ft.	
Shale.	9	Sand slate, gray.	28	Dawson Formation (lower part):	
Sand and sandstone.	14	Iron rock.	1	Clay.	25
Clay.	91	Sandstone.	17	Sandstone.	15
Lower conglomerate:		Iron rock.	1	Shale, gray.	15
Sandrock.	2	Sandstone.	16	Sand, blue, and shale.	55
Clay.	5	Iron rock.	1	Laramie Formation:	
Sandstone.	8	Sandstone.	71	Shale, blue.	12
Clay.	3			Iron rock.	3
Sand and sandstone.	5			Shale, sandy.	20
Clay.	17			Sandstone.	10
				Shale, sandy, blue.	15
				Shale, sandy, gray.	25
				Sandstone, "split"	9
				Coal.	1
				Shale, brown.	45
				Shale, gray.	50
				Shale, blue.	10
				Shale, sandy, gray.	20
				Shale, gray.	20

Table 1.--Logs of wells and test holes --Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>Cl-68-11cdbs. Alt. 5,282 ft.</b>		<b>Cl-69-10dabb. --Continued</b>		<b>Cl-69-26ccgd. --Continued</b>	
Rocky Flats Alluvium:		Coal	7	Shale	8
Clay and boulders	22	3 sandstone:	147		580
Dawson Formation:		Sandstone, gray	5	Sandstone B sandstone.	
Sandstone, firmly ce-		Sandstone	98	680 to 750 feet.]	70
mented.	2	A sandstone of the Laramie	240	Shale	135
Sand and gray shale	80	Formation and Milliken		A sandstone:	
Shale, blue	80	Sandstone Member of the		Sand	15
Iron rock	2	Fox Hills Sandstone,		Shale, gray	50
Laramie Formation:		undifferentiated:		Fox Hills Sandstone:	
Shale, gray	89	Iron rock	1	Milliken Sandstone Member:	
Sand and gray shale	75	Sandstone	204	Sand	45
Shale, blue	50	Iron rock	2	Shale, gray	20
Shale, gray	150	Sandstone, white	22	Shale, hard, gray	13
Shale, blue	40		469		1,038
Sand and blue shale	40				
Shale, gray	57	<b>Cl-69-17bcdb. Alt. 5,191 ft.</b>		<b>Cl-69-35ddda. Alt. 5,148 ft.</b>	
Coal	9	Piney Creek Alluvium:	8	No sample	116
Shale, gray	10	Clay	8	Dawson Formation (lower part):	
Coal	2	Broadway Alluvium:		Lower conglomerate:	
Sand and gray shale	8	Gravel	6	Sand, fine, and shale,	
B and A sandstones,		Laramie Formation:		sandy, gray; inter-	
undifferentiated:		Soapstone	10	bedded	19
Sandstone	165	Coal	1	Sand, fine, silty, and	
Fox Hills Sandstone:		Shale, gray	63	sandy shale	9
Milliken Sandstone Member:		Soapstone	20	Shale, gray	11
Lime	17	Iron rock	1	Sand, silty, and shale	10
Sand, fine	27	Shale, gray	29	Laramie Formation:	
Lime	1	Soapstone	17	Shale, gray; contains	
Sand, fine	29	Shale, black	7	thin breaks of fine	
Lime	2	Crevise (old mine shaft)	5	sand and lignitic	
Sand, fine, and gray		Shale, gray	33	coal	10
shale	14	Shale, black	4	Sand, fine, and gray sandy	
Transition zone:		Coal	6	shale, interbedded	20
Shale, gray, sandy	30	Shale, black	10	Shale, gray; contains	
Sand, fine, and gray		Coal	4	thin sandy streaks	40
shale	10	Shale, gray	20	Sand, fine, and silty	
Coal and gray shale	18	Coal	1	shale	10
Lime	2	Sand and shale	10	Shale, gray; contains	
Sand, fine, and gray		B and A sandstones of the		thin streaks of sand	
shale	40	Laramie Formation and		and thin layers of	
Shale, gray	5	Milliken Sandstone Member		coal	40
Lime	2	of the Fox Hills Sandstone,		Shale, dark-gray; con-	
Shale, gray	3	undifferentiated:		tains a few streaks	
	1,100	Sandstone	255	of sand and thin layers	
		Transition zone:	530	of coal	90
		Shale, blue	40	Shale, gray; contains	
		Sandstone	30	occasional thin beds	
		Shale, gray	150	of coal and thin hard	
		Shale, gray	150	cemented streaks of	
		Shale, blue	150	fine-grained sand-	
		Sand shale	70	stone	80
		Sand, gray, and shale	60	Shale interbedded with	
		Limestone, very sandy,		silty fine sand	20
		very hard	1	Shale, gray, interbedded	
		Shale, gray	169	with fine sand and	
		Limestone, very sandy,		coal	210
		very hard	1	B sandstone:	
		Shale, blue-gray	174	Sand, fine, somewhat	
			1,525	silty	63
				Sand, fine, shaly;	
				contains a trace of	
				coal	22
				A sandstone:	
				Sand, fine	10
				Shale, sandy	30
				Fox Hills Sandstone	
				Milliken Sandstone Member:	
				Sand, fine, white	10
				Sand, fine, and gray	
				shale	5
				Sand; occasionally	
				cemented in hard streaks;	
				contains thin layers	
				of gray shale	15
				Shale, sandy, gray	5
				Sand, fine; contains a	
				trace of shale	25
				Transition zone:	
				Shale, gray, and fine	
				shaly sand	83
					1,053
			</		

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C1-70-28baa. Alt. 5,953 ft.</b>		<b>C2-65-15cdcd. --Continued</b>		<b>C2-66-6aaaa. --Continued</b>	
Rocky Flats Alluvium:		Dawson Formation (upper part):		Gravel, fine to medium, subrounded . . . . . 5 19	
Shoulders and gravel . . . . . 24 24		Clay . . . . . 2 18		Dawson Formation (upper part):	
Laramie Formation:		Shale, gray . . . . . 6 24		Clay, plastic, slightly sandy, calcareous, gray, contains black minerals (no water) . . . . . 5 24	
Sandstone and clay . . . . . 5 29		Shale . . . . . 16 40		<b>C2-66-7abab. Alt. 5,100 ft.</b>	
Soapstone, gray . . . . . 2 31		Rock . . . . . 2 42		Eolian sand:	
Sandstone: contains thin streaks of coal . . . . . 15 46		Shale . . . . . 33 125		Sand, fine to medium, loose, angular . . . . . 5 5	
Soapstone, gray and bentonite: contains thin streaks of coal . . . . . 7 53		Shale, sandy . . . . . 14 139		Verdos Alluvium:	
Bentonite . . . . . 12 65		Shale . . . . . 27 166		Sand, fine, clayey, friable, very calcareous; occasional particles of tan very fine gravel (water at 20 feet) . . . . . 19 24	
Soapstone, gray, and bentonite: contains streaks of earthy coal . . . . . 10 75		Upper conglomerate:		No sample . . . . . 3 17	
Shale, gray . . . . . 12 87		Sand . . . . . 8 174		Sand, as above, but with less fine gravel . . . . . 2 29	
Sandrock, brown and gray, hard . . . . . 1 88		Shale . . . . . 16 190		Sand, fine to medium, clayey; slight increase to about 5 percent very fine gravel . . . . . 2 31	
Bentonite . . . . . 2 90		Sand . . . . . 47 237		<b>C2-66-7abbb. Alt. 5,103.5 ft.</b>	
Shale and streaks of sandstone . . . . . 10 100		Shale . . . . . 11 248		Eolian sand:	
Shale and earthy coal . . . . . 5 105		<b>C2-65-15dcdc2. Alt. 5,362 ft.</b>		Silt, sandy, clayey, friable, brown, dry; 10 percent sand . . . . . 6.8 6.8	
Shale . . . . . 9 114		Piney Creek Alluvium:		Sand, clayey, soft, saturated, brown; 20 percent fines . . . . . 1.4 8.2	
Coal, very soft, streaks of bentonite, and brown sandstone . . . . . 14 128		Clay . . . . . 6 6		Clay, sandy, stiff, brown, moist, slightly calcareous . . . . . 1.8 10	
Sandstone, white . . . . . 22 150		Broadway and Louviers Alluvium, undifferentiated:		Clay, as above; 10 percent fine sand and a lens of fine to medium sand 0.1 foot thick . . . . . 2.1 12.1	
Sandstone, gray . . . . . 20 170		Sand . . . . . 24 30		Sand, medium to fine, silty, saturated, tan-brown; 60 percent fine sand; 20 percent medium sand; and 20 percent fines; contains lenses of clayey sands at about 15 feet . . . . . 7.5 19.6	
Coal . . . . . 11 181		Gravel . . . . . 10 40		Verdos Alluvium:	
Shale . . . . . 4 185		Clay . . . . . 2 42		Sand, gravelly, clayey . . . . . 4 20	
Shale and sandstone . . . . . 5 190		Gravel . . . . . 3 45		Sand, gravelly, moist, white-tan; slightly cemented (may be a flat boulder) . . . . . 2.1 22.1	
Shale . . . . . 40 230		Clay . . . . . 3 48		Dawson Formation (upper part):	
Shale and coal . . . . . 13 243		<b>C2-66-4abbb.</b>		Clay, sandy, stiff, moist, moderately weathered, gray-brown, slightly iron-stained; contains fragments of lignite; noncalcareous . . . . . 2.9 25	
Shale . . . . . 1 244		Piney Creek Alluvium:		<b>C2-66-7abbb. Alt. 5,143 ft.</b>	
Coal . . . . . 13 257		Sand, very fine to fine, subangular, fairly loose, dark-brown . . . . . 4 4		Eolian sand:	
Shale . . . . . 3 260		Clay, silty and sandy, friable, noncalcareous, dark-brown . . . . . 8 12		Sand, fine to medium, subangular, poorly sorted, loose . . . . . 2 2	
Shale, sandy, and some sandstone . . . . . 15 275		Sand, very fine, silty . . . . . 12 24		Verdos Alluvium:	
Shale . . . . . 10 285		Sand, medium to coarse, loose, angular to subangular, tan . . . . . 5 29		Sand, fine, very clayey, very calcareous, slightly bentonitic . . . . . 15 24	
<b>C2-65-14cdcd. Alt. 5,282 ft.</b>		Dawson Formation (upper part):		Sand, fine, calcareous very bentonitic, yellowish-tan . . . . . 2 26	
Broadway and Louviers Alluvium, undifferentiated:		Shale, clay, very dark-gray . . . . . 5 34		<b>C2-66-7abaa. Alt. 5,100 ft.</b>	
Gravel . . . . . 26 26		<b>C2-66-3bcbh. Alt. 5,125 ft.</b>		Eolian sand:	
Dawson Formation (upper part):		Eolian sand:		Clay, silty and sandy, plastic, very calcareous, medium-brown . . . . . 6 6	
Clay . . . . . 9 35		Sand, medium, uniform, loose, angular, brown . . . . . 2 2		Sand, very fine . . . . . 4 10	
Rock . . . . . 2 37		Sand, very fine, and tan clay . . . . . 9 11		Sand, very fine, clayey, very calcareous . . . . . 7 17	
Clay . . . . . 1 38		Sand, very fine to fine, and tan clay . . . . . 6 17		Sand, medium to coarse, clayey, very calcareous; contains streaks of caliche . . . . . 1 18	
Shale . . . . . 12 50		Verdos Alluvium:		Dawson Formation (upper part):	
Rock . . . . . 1 51		Sand, very fine to fine, clay, friable; contains some pebbles . . . . . 4 21		Clay, sandy, stiff, moist, moderately weathered, gray-brown, slightly iron-stained; contains fragments of lignite; noncalcareous . . . . . 2.9 25	
Shale, blue . . . . . 34 85		Gravel, very fine to fine; contains subrounded to rounded pebbles . . . . . 3 24		<b>C2-66-7abbb. Alt. 5,110 ft.</b>	
Coal . . . . . 4 89		Clay . . . . . 1.5 25.5		Eolian sand:	
Shale . . . . . 6 95		Sand, coarse to very coarse, and subangular very fine to fine gravel . . . . . 8.5 34		Clay, silty and sandy, plastic, very calcareous, medium-brown . . . . . 6 6	
Shale, sandy . . . . . 5 100		Sand, fine to coarse, silty . . . . . .5 34.5		Sand, very fine . . . . . 4 10	
Upper conglomerate:		<b>C2-66-3cgbh. Alt. 5,120 ft.</b>		Sand, very fine, clayey, very calcareous . . . . . 7 17	
Sand . . . . . 50 150		Eolian sand:		Sand, medium to coarse, clayey, very calcareous; contains streaks of caliche . . . . . 1 18	
Shale . . . . . 16 166		Sand, fine, angular to subangular, loose, light-brown . . . . . 8 9		Dawson Formation (upper part):	
<b>C2-65-21ddd. Alt. 5,419 ft.</b>		Sand, fine to medium, subangular, loose, light-brown . . . . . 10 18		Shale, slightly silty, noncalcareous, dark-brown; hackly partings . . . . . 11 29	
Eolian sand and Dawson Formation, undifferentiated:		Verdos Alluvium:		<b>C2-66-7abbb. Alt. 5,110 ft.</b>	
Surface . . . . . 97 97		Gravel, medium, well-sorted, subangular, subrounded; much broken material . . . . . 1 19		Eolian sand:	
Dawson Formation (upper part):		Sand, fine, clayey, and 10 percent or less very fine gravel . . . . . 1 20		Clay, silty and sandy, plastic, very calcareous, medium-brown . . . . . 6 6	
Clay, blue; contains streaks of coal . . . . . 23 120		Gravel, very fine to medium, subrounded, and silty sand; large rock . . . . . 15 35		Sand, very fine . . . . . 4 10	
Clay, blue . . . . . 30 150		Sand, medium to very coarse, loose, angular to subangular . . . . . 8 43		Sand, very fine, clayey, very calcareous . . . . . 7 17	
Sandstone . . . . . 45 195		Dawson Formation (upper part):		Sand, medium to coarse, clayey, very calcareous; contains streaks of caliche . . . . . 1 18	
Clay, blue . . . . . 105 107		Shale, noncalcareous, gray, very hard when dry . . . . . 2 45		Dawson Formation (upper part):	
Shale, blue, and streaks of sandstone . . . . . 250 550		<b>C2-66-6aaaa. Alt. 5,110 ft.</b>		Shale, slightly silty, noncalcareous, dark-brown; hackly partings . . . . . 11 29	
Dawson Formation (lower part):		Eolian sand:		<b>C2-66-7abbb. Alt. 5,110 ft.</b>	
Shale, sandy [Middle conglomerate, 550 to 780 feet.] (some water) . . . . . 125 675		Sand, medium, uniform, subangular to angular . . . . . 3 3		Eolian sand:	
Shale, blue, and streaks of sandstone . . . . . 65 740		Verdos Alluvium:		Clay, sandy, plastic, very calcareous, tan . . . . . 12 12	
Shale, hard . . . . . 30 770		Silt, sandy, cream-white coatings; very bentonitic . . . . . 11 14		Sand, medium to coarse, loose, angular to subangular . . . . . 7.5 19.5	
Sandstone (water) . . . . . 10 780		<b>C2-65-15cdcd. Alt. 5,358 ft.</b>		Dawson Formation (upper part):	
Shale, blue . . . . . 75 855		Piney Creek Alluvium:		Shale, silty, noncalcareous, light-gray . . . . . 3.5 29	
Lower conglomerate:		Clay . . . . . 4 4			
Sand (water) . . . . . 10 865		Clay . . . . . 14 18			
Shale . . . . . 15 900		Broadway and Louviers Alluvium, undifferentiated:			
<b>C2-65-21ddd. Alt. 5,310 ft.</b>		Gravel, dirty . . . . . 7 25			
Piney Creek Alluvium:		Gravel . . . . . 27 52			
Clay, sandy . . . . . 4 4		Clay . . . . . 2 54			
Clay . . . . . 14 18		Gravel . . . . . 7 61			
Broadway and Louviers Alluvium, undifferentiated:		Clay . . . . . 3 64			
Gravel, dirty . . . . . 7 25		Dawson Formation:			
Gravel . . . . . 27 52		Shale . . . . . 11 75			
Clay . . . . . 2 54		<b>C2-65-15cdcd. Alt. 5,358 ft.</b>			
Gravel . . . . . 7 61		Piney Creek Alluvium:			
Clay . . . . . 3 64		Clay . . . . . 10 10			
Dawson Formation:		Sand . . . . . 6 16			
Shale . . . . . 11 75					

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C2-66-70sub. Alt. 5,140 ft.</b>					
Eolian sand:					
Silt, sandy, noncalcareous, clayey, dark-reddish-brown	5				
Sand, fine to medium, poorly-sorted, loose, subangular to subrounded, light-tan	2				
Sand, fine to coarse, very poorly-sorted, subangular to angular, very calcareous	11				
Verdos Alluvium:					
Gravel, very fine to coarse, subangular, and clayey sand	8				
Gravel, coarse, well-sorted, clean, subrounded to rounded	4				
Gravel, as above, and 50 percent medium to very coarse sand	5				
Gravel, fine to coarse, poorly-sorted, subrounded to subangular	3				
Gravel, fine to medium, poorly-sorted, and 50 percent clayey sand	3				
Dawson Formation (upper part):					
Sand, medium to very coarse, dry calcareous cemented poorly-sorted very fine angular gravel, silt, clay, and clayey shale	3				
<b>C2-66-70cgg. Alt. 5,159 ft.</b>					
Eolian sand:					
Sand, fine, loose, subangular, slightly clayey, tan	12				
Sand, very fine, clayey, very calcareous; contains small bits of calcareous material	3				
Verdos Alluvium:					
Gravel, very fine to fine, subangular, and clayey medium sand	8				
Silt and very fine sand	7				
Sand, angular to subangular, medium to coarse and very fine to medium angular clayey gravel	13				
Sand, medium to coarse; contains some scattered subangular to subrounded coarse gravel (no water)	10				
Dawson Formation (upper part):					
Sandstone, caliche, and bentonitic clay at 3 feet					
<b>C2-66-71ada. Alt. 5,120 ft.</b>					
Eolian sand:					
Sand, fine, and brown clay	11				
Sand, coarse, calcareous, compact, light-tan	4				
Verdos Alluvium:					
Sand, medium to coarse, subangular, loose, tan	6				
Sand, fine to medium, and silt	9				
Clay, silty, sandy, calcareous, bentonitic	4				
<b>C2-66-70ddd. Alt. 5,143 ft.</b>					
Eolian sand:					
Sand, fine, angular to subangular, loose, light-brown	3				
Verdos Alluvium:					
Sand, fine to medium, subangular, tan, and very fine gravel	5				
Sand, fine to medium, very calcareous	5				
Sand, silty, calcareous, and very fine angular gravel	5				
Sand, silty, very calcareous, light-brown	12				
Sand, fine to coarse, silty, very calcareous, yellow	5				
<b>C2-66-70ddd. Alt. 5,145 ft.</b>					
Eolian sand:					
Sand	18				
Clay	10				
Verdos Alluvium:					
Gravel	2				
Clay	9				
Sand	4				
Clay	7				
Clay and layers of gravel	5				
Gravel	11				
Dawson Formation (upper part):					
Clay	6				
Shale	124				
Dawson Formation (lower part):					
Middle conglomerate:					
Sand	5				
Shale	7				
Rock	1				
Sand	25				
Shale	14				
<b>C2-66-10acab. Alt. 5,190 ft.</b>					
Eolian sand:					
Sand	13				
Clay	3				
Sand	4				
Dawson Formation (upper part):					
Clay, blue	7				
Sand, fine (Upper conglomerate, 32 to 154 feet)	8				
Coal	3				
Shale	7				
Sand	11				
Shale, hard	3				
Sand, hard	15				
Shale	45				
Shale, soft, gray	5				
Sand	25				
Shale	8				
Shale, hard, black	12				
Rock	1				
Shale, soft gray	70				
Rock	1				
Shale	14				
Dawson Formation (lower part):					
Middle conglomerate:					
Sand	13				
Shale	15				
<b>C2-66-18ddbc. Alt. 5,193 ft.</b>					
Eolian sand:					
Soil, sandy	1				
Silt, fine, clay	5				
Clay, silty, tan	9				
Verdos Alluvium:					
Sand, coarse, buff, and fine gravel	5				
Clay, sticky	4				
Gravel and coarse sand	3				
Clay, silty	5				
Sand, medium to coarse	2				
Dawson Formation (upper part):					
Clay, yellow to gray	1				
Shale, gray	5				
Sandstone, fine, hard, cemented	1				
Shale, gray, silty	5				
Coal, soft, lignitic	1				
Shale, gray, silty to clayey	27				
Coal, soft, lignitic	2				
Shale, gray, clay	9				
Coal, soft, lignitic	1				
Shale, gray, and clay	34				
Sand, very fine, silty to clayey (Upper conglomerate, 128 to 146 feet)	6				
Coal, soft, lignitic	6				
Shale, gray, silty to clayey	17				
Sand, fine, soft, silty to clayey	5				
Shale, gray, clayey, of variable hardness	20				
Sand, very fine, silty, sticky, and shale	40				
Sand, very fine, gray, soft	4				
Shale, gray to brown, silty to clayey	102				
Sand, very fine, soft, silty	9				
<b>C2-66-18ddbc. Alt. 5,198 ft.</b>					
Eolian sand:					
Topsoil	9				
Silt, sandy, dark-brown	2				
Silt, clayey, semiplastic, calcareous	1.1				
Silt, as above; contains some fine sand and clay	1				
Verdos Alluvium:					
Silt, as above; contains volcanic ash having calcareous streaks	2				
Silt, clayey, semiplastic, calcareous	3.4				
Dawson Formation (upper part):					
Shale, weathered, subfirm, grayish-green	1.6				
Shale, as above, slightly calcareous, iron oxide stains	1				
Shale, weathered, subfirm, grayish-green; contains streaks of dark-gray shale	3				
Siltstone, weathered, soft, friable, laminated, light-gray	1.3				
Shale, weathered, medium-gray, iron oxide stains	1.9				
Siltstone, weathered, soft, friable, laminated, medium-gray	1				
Shale, weathered, dark-gray and medium-gray	3.8				
Sand, weathered, highly carbonaceous, soft, moist, maroonish-gray	1.6				
Claystone, weathered, medium-gray, iron oxide stains	1.4				
<b>C2-66-20ada. Alt. 5,166 ft.</b>					
Eolian sand:					
Silt, sandy, compact, friable, calcareous, medium-brown; calcium carbonate streaks	3.4				
Sand, silty, fine, loose, calcareous, medium-brown	9				
Silt, friable to compact, calcareous, medium-brown; contains some clay and sand	1.8				
Sand, fine, loose, silty, calcareous, medium-brown; contains pebbles	2.1				
Sand, fine, loose, calcareous, greenish-gray	2.6				
Sand, fine, loose, friable, rusty-brown; contains some layers of silt	2.8				
Sand, silty, fine, loose, moist, yellowish-green; light-brown zone from 17.3 to 17.4 feet	1.3				

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C2-66-20ada.</b> --Continued		<b>C2-66-30cbbc.</b> --Continued		<b>C2-67-1abab.</b> --Continued	
Dawson Formation (upper part):		7.5 to 10 feet, some		Shale, black	
Shale, weathered, medium-		clay; contains streaks		rock, soft	
gray.	0.9 18.3	of very coarse sand		Shale, soft.	
Siltstone, weathered,		at 11 feet: contains		Rock	
light- to medium-gray;		medium gravel		Shale.	
contains pieces of		3.2	14.8	Shale, brown	
gypsum.		Sand, fine, loose.		Shale, blue.	
2	20.3	yellow.		Sand, dirty.	
Shale, weathered,		1.2	16	Rock, hard	
medium-gray; contains		Dawson Formation (upper part):		Shale.	
carbonaceous flecks		Sand, fine, yellow with		Sand, hard, dirty.	
and streaks		greenish tinge, some		Shale's	
1.7	22	silt; contains uniformly		Rock	
<b>C2-66-20ada.</b> Alt. 5,166.7 ft.		disseminated dark		Shale	
Eolian sand:		grains.		300	
Topsoil		16.6	32.6	301.3	
Silt, sandy, clayey,		Sand, as above; a little		329	
dark-brown; 60 percent		coarser; contains		330	
silt, 20 percent clay,		less clay		Dawson Formation (lower part):	
and 20 percent fine		9	41.6	Middle conglomerate:	
sand.		Shale, weathered, car-		Sand	
1.1	2	bonaceous material,		Shale.	
Silt, as above; calcar-		dark-gray; iron		23	153
eous.		oxide stains.		17	170
1	3	1.4	43	<b>C2-67-1baba.</b> Alt. 5,058 ft.	
Silt, soft, semiplastic,		<b>C2-66-31bda.</b> Alt. 5,232 ft.		Eolian sand:	
medium-brown.		Eolian sand:		Clay, sandy.	
3.4	6.4	Topsoil		26	
Silt, clayey, soft,		1.1	1.1	Louviers Alluvium:	
brownish-gray; 60 per-		Silt, clayey, calcareous,		Gravel	
cent silt, 40 percent		5	2	8	
clay (water at 7.5		soft, grayish-brown		Dawson Formation (upper part):	
feet)		1	3	Clay	
4.1	10.5	Silt, as above; very		Shale.	
Sand, fine, silty, soft,		soft, muck at 4.5		Shale, sandy	
saturated, grayish-		1	4	Shale, blue.	
brown; 60 percent sand,		Silt, as above; soft,		Shale, blue.	
30 percent silt, and		semiplastic		Sandstone, dirty	
10 percent clay		1	5	Shale.	
7.3	17.8	Silt, as above; medium-		Shale, sandy	
Dawson Formation (upper part):		brown		Shale, blue.	
Sand, fine, laminated,		1	6	Shale, sandy	
brownish-gray		Silt, as above; contains		Shale, brown	
1.2	19	minor amount of fine		Rock	
Sand, as above; green		sand.		Shale, sandy	
tinge		8.7	14.7	Shale	
2	21	Sand, fine, loose,		Shale, sandy	
Sand, as above; contains		medium-brown, some		Rock	
limestone concretions		3.9	18.6	Shale.	
from 21.3 to 21.6 feet		silt and clay		55	335
1.3	22.3	Sand, medium, loose,		Dawson Formation (lower part):	
<b>C2-66-29accc.</b> Alt. 5,230 ft.		medium-brown.		Middle conglomerate:	
Eolian sand:		7	19.3	Sand	
Topsoil		Dawson Formation (upper part):		Shale.	
Silt, sandy, compact,		Siltstone, weathered,		24	359
calcareous, medium-		compact, sandy,		13	372
to light-brown.		7	20	<b>C2-67-1ccccc.</b> Alt. 5,092.3 ft.	
4.3	5	Siltstone, as above;		Eolian sand:	
Silt, as above; contains		contains joints and		Sand	
more sand		iron stains		7	7
1.3	6.1	Siltstone, as above;		Louviers Alluvium:	
Sand, silty, fine, loose,		contains subrounded		Clay	
calcareous, light-		medium gravel		Sand, fine	
brown		7	28	Clay	
9.9	16.2	<b>C2-66-32adbc.</b> Alt. 5,278 ft.		Gravel	
Silt, sandy, compact,		Eolian sand:		Clay	
calcareous, medium-		Topsoil		5	43
brown		7	7	<b>C2-67-2cdddd.</b> Alt. 5,080 ft.	
4.8	21	Silt, sandy, compact,		Eolian sand:	
Dawson Formation (upper part):		calcareous, medium-		Soil	
Silt, as above; contains		brown; contains		31	11
small pieces of		calcium carbonate		Louviers Alluvium:	
gypsum.		streaks		Clay	
2	23	Silt, as above, loose		Gravel	
Silt, as above; con-		4.3	5	Clay	
tains no gypsum		5	10	Gravel and boulders.	
7.5	30.5	Silt, sandy, loose,		Dawson Formation (upper part):	
Sand, silty, fine, loose,		calcareous, medium-		Rock, cemented	
slightly calcareous,		brown; contains		Clay, sandy, and	
2.2	32.7	minor amount of clay		boulders	
Siltstone, weathered,		3.2	13.2	Shale.	
yellowish-green; brown		loose, calcareous		16	68
iron stains		2.3	16	33	
3.3	36	Sand, as above; contains		<b>C2-67-3aabb.</b> Alt. 5,020 ft.	
Siltstone, as above;		some clay		Post-Piney Creek alluvium:	
contains some streaks		1.8	17.8	Topsoil.	
of clay		Sand, medium, loose.		5	5
3.2	39.2	brownish-gray; wet		Louviers Alluvium:	
Shale, weathered,		zone between 21.0		Sand and gravel.	
4.8	44	and 22.1 feet		40	45
Shale, very fissile,		4.3	22.1	Dawson Formation (upper part):	
medium-dark-brown;		Dawson Formation (upper part):		Shale, blue.	
white flecks.		Shale, weathered, car-		Sandstone.	
1	45	bonaceous, very		Shale, blue.	
<b>C2-66-30cbab.</b> Alt. 5,190 ft.		fissile, slightly		Shale, blue; contains	
Piney Creek Alluvium:		calcareous, reddish-		layers of sand	
Soil.		brown		Shale, blue.	
7	7	1.2	23.3	Shale, sandy, and layers	
Broadway and Louviers Alluvium,		Shale, weathered, light-		of sandstone	
undifferentiated:		gray.		Shale, sandy	
8	15	5	23.8	270	
Gravel.		Shale, silty, weathered,		284	
2	17	gray-brown.		<b>C2-67-jdbda.</b> Alt. 5,060 ft.	
3	20	Siltstone, clayey,		Broadway and Louviers Alluvium,	
Dawson Formation (upper part):		weathered, greenish		undifferentiated:	
Sand (rock)		to light-gray; iron		Soil	
29	49	oxide stains, very		Sand and gravel.	
Shale		grainy; resembles		Louviers Alluvium:	
1	50	weathered sandstone		Clay	
<b>C2-66-30cbbc.</b> Alt. 5,190.1 ft.		in texture.		Gravel, coarse, and	
Piney Creek Alluvium:		5.6	30	boulders	
Topsoil		<b>C2-67-1abab.</b> Alt. 5,075 ft.		25	
Silt, clayey, semiplastic,		Eolian sand:		60	
medium-brown; contains		Sand, fine.		<b>C2-67-jdbda.</b> Alt. 5,060 ft.	
minor amount of sand		7	7	Broadway and Louviers Alluvium,	
Silt, as above; mica-		Louviers Alluvium:		undifferentiated:	
ceous		Clay.		Soil	
1	3.5	Sand.		Sand and gravel.	
3.1	6.6	Dawson Formation (upper part):		Louviers Alluvium:	
Silt, as above; soft.		Clay.		Clay	
Sand, silty, fine,		5	43	Gravel, coarse, and	
loose, saturated,		Shale.		boulders	
medium-brown 8.4 to		19	92	25	
9.5 feet, dark-gray		7	89	60	

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C2-67-9dbdc. Alt. 5,025.0 ft.</b>					
Post-Piney Creek alluvium:					
Sand, fine, uncemented, tan	1.6	1.6			
Silt, clayey, soft, brown-gray; 5 to 10 percent fine sand; much organic material, moderately iron stained	5.8	7.4			
Sand, gravelly, loose, saturated, uncemented, gray	3	10.4			
Louviere Alluvium:					
Gravel, sandy, loose, gray-white; 60 percent fine gravel, 10 percent coarse sand, and 10 percent fine sand; some very coarse gravel subrounded to well-rounded	7.7	18.1			
Gravel, clayey, sandy, tan and gray	5.1	23.2			
Sand, gravelly, tan	4.3	27.5			
Sand, clayey, gravelly, brown and tan	1.8	29.3			
Dawson Formation (upper part):					
Clay, silty, and lignite	.7	30			
<b>C2-67-9addd. Alt. 5,050 ft.</b>					
Piney Creek Alluvium:					
Clay, sandy	5	5			
Louviere Alluvium:					
Sand	4	9			
Gravel	8	17			
Dawson Formation (upper part):					
Clay	13	30			
Rocks	10	40			
Clay	1	41			
Shale	117	158			
Sand [Upper conglomerate, 158 to 180 feet.]:					
Shale	11	169			
Sand	7	176			
Sand	4	180			
Shale, hard, brown	32	212			
Shale, sandy	4	216			
Shale, hard, black	12	228			
Shale, sandy	21	249			
Shale, brown	7	256			
Shale, blue	36	292			
Rock	3	295			
Dawson Formation (lower part):					
Middle conglomerate:					
Sand	15	310			
Shale, hard, blue	16	326			
Shale, brown	14	340			
<b>C2-67-9bdba. Alt. 5,035.0 ft.</b>					
Post-Piney Creek alluvium:					
Silt, sandy, clayey, brown-gray; moderately iron stained	3.9	3.9			
Louviere Alluvium:					
Sand, fine, gravelly, brown-gray; 20 percent gravel, 10 percent fines	4.3	8.2			
Sand, gravelly, tan-gray; 10 percent gravel, 10 percent fines	1.8	10			
Sand, as above, brown-tan	2.3	12.3			
Sand, clayey, gravelly, tan-gray; 20 percent fine gravel, 15 percent fines; may be slightly indurated at about 18 feet	7.7	20			
Sand, as above; clay content decreasing; material is considerably more porous	7.4	27.4			
Silt, clayey, sandy, stiff, gray; top 0.3 foot weathered to brown	2.6	30			
<b>C2-67-9dcdb. Alt. 5,081 ft.</b>					
Broadway Alluvium:					
Clay	15	15			
Sand	13	28			
Louviere Alluvium:					
Clay	3	31			
Gravel, coarse	16	47			
Dawson Formation:					
Shale	6	53			
<b>C2-67-9dcdd. Alt. 5,081 ft.</b>					
Broadway Alluvium:					
Clay	6	6			
Sand	28	34			
Louviere Alluvium:					
Gravel	10	44			
Clay	3	47			
Dawson Formation:					
Shale	2	49			
<b>C2-67-9dcdd2. Alt. 5,081 ft.</b>					
Broadway Alluvium:					
Topsoil	3	3			
Sand	21	24			
Louviere Alluvium:					
Gravel	6	30			
Rocks	13	43			
Dawson Formation (upper part):					
Clay	3	46			
Shale, blue	22	68			
Sand and shale	11	79			
Shale, blue	10	89			
Sandrock	12	101			
Shale, blue	190	291			
Sandrock	15	306			
Dawson Formation (lower part):					
Shale; contains streaks of sandrock (Middle conglomerate, 360 to 522 feet.):					
Sandrock	78	384			
Sand and shale	14	398			
Sandrock	8	406			
Sandrock	8	414			
Shale; contains streaks of sandrock:					
Rock, hard	1	523			
Sandrock	4	527			
Shale, blue; contains streaks of sandrock:					
Rock, hard	3	624			
Shale, blue	45	669			
Lower conglomerate:					
Sandrock	11	680			
Shale, blue	13	693			
Sandrock	31	724			
Shale, blue	8	732			
<b>C2-67-10acbb. Alt. 5,070 ft.</b>					
Broadway and Louviere Alluvium, undifferentiated:					
Clay, sandy	30	30			
Gravel	12	42			
<b>C2-67-10cddd. Alt. 5,079.5 ft.</b>					
Broadway Alluvium:					
Clay	11	11			
Gravel	2	13			
Louviere Alluvium:					
Clay, sandy	10	23			
Gravel	18	41			
Dawson Formation (upper part):					
Sandstone	11	52			
Shale	2	54			
<b>C2-67-10dcdd. Alt. 5,073.2 ft.</b>					
Broadway Alluvium:					
Sand, fine, clayey, noncalcareous, light-brown; 10 percent fines	5.2	5.2			
Sand, clayey, gravelly, highly calcareous, brown-white; 30 percent fines, 15 percent gravel, no gravel 6.5 to 8.0 feet	4.8	10			
Sand, as above; 50 percent sand; 30 percent fines, 20 to 30 percent gravel; moderately to highly calcareous; fines decreasing	8.3	18.3			
Gravel, sandy, cemented, brown; 15 percent sand, 30 percent fine gravel, 20 percent cobbles, 15 percent fines	1.7	20			
Gravel, as above, non-cemented, slightly iron stained	1.6	21.6			
Louviere Alluvium:					
Silt, fine, sandy, tan-gray, slightly iron stained	2.4	24			
Sand, gravelly, brown-tan; 20 percent fine gravel, 15 percent fines	1.8	25.8			
Sand, fine, silty, tan-gray, slightly iron stained	1.7	27.5			
Gravel, sandy, brown-gray; 40 percent fine gravel					
<b>C2-67-10dddc. --Continued</b>					
15 percent sand, 15 percent fines, 10 percent cobbles					
Gravel, sandy, brown-gray; 50 percent fine gravel, 15 percent sand, 15 percent fines, rounded to well-rounded, saturated	1.6	33.6			
Dawson Formation (upper part):					
Clay, silty, brown-gray, highly fractured, iron stained, moderately weathered; contains 15 percent organic material, color changing to reddish brown at about 16.5 feet	4.8	38.4			
Sand, clayey, tan	2.6	41			
<b>C2-67-10ddbb. Alt. 5,081.5 ft.</b>					
Broadway Alluvium:					
Clay	4	4			
Sand, fine	2	6			
Clay, sandy	4	10			
Louviere Alluvium:					
Clay	2	12			
Sand	3	15			
Gravel	6	21			
Clay	3	24			
Gravel	2	26			
Clay	2	28			
Gravel	15	43			
Clay	2	45			
<b>C2-67-11aaba. Alt. 5,091 ft.</b>					
Eolian sand:					
Clay, sandy	8	8			
Louviere Alluvium:					
Clay	23	31			
Sand, fine	3	34			
Gravel	5	39			
Dawson Formation:					
Cement rock	4	43			
Clay	2	45			
<b>C2-67-11cdeb. Alt. 5,097.0 ft.</b>					
Eolian sand:					
Clay	7	7			
Clay, sandy	5	12			
Clay, hard	14	26			
Louviere Alluvium:					
Gravel	12	38			
Dawson Formation (upper part):					
Conglomerate	6	44			
Clay	2	46			
Shale	2	48			
<b>C2-67-11daga. Alt. 5,110 ft.</b>					
Eolian sand:					
Sand, fine, clayey, loose, brown; 55 percent fines	3.7	3.7			
Sand, fine, silty, moderately calcareous, tan; 25 percent fines		12.7			
Sand, fine, clayey, slightly calcareous, brown; 25 percent fines which decrease with depth	4.4	17.1			
Sand, fine, silty; 30 percent fines	2.9	20			
Sand, fine, silty, tan; 20 percent fines	2.5	22.5			
Louviere Alluvium:					
Sand, gravelly, clayey, light-brown; 65 percent medium to fine sand, 25 percent coarse sand and fine gravels, 10 percent fines	3.9	26.4			
Silt, sandy, clayey, slightly calcareous, brown; 30 percent fine sand	4.4	30.8			
Sand, medium to fine, light-brown; 10 percent fines; saturated at about 13.5 feet	5.8	36.6			
Dawson Formation (upper part):					
Sand, clayey, moderately cemented, gray-tan-white; 20 percent fines; small disc-shaped concretions with a white noncalcareous cementing agent	3	39.6			
Sand, fine, moderately iron stained	4	40			
Sand, fine, silty, tan-gray; 20 percent fines					

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C2-67-11daaa.--Continued</b>		<b>C2-67-12cagb. Alt. 5,120 ft.</b>		<b>C2-67-13apcb.--Continued</b>	
a few small cobbles		Eolian sand:		grains of coarse sand;	
46.0 feet	7.9	Silt, sandy, brown:		finer decrease with	
Silt, sandy, clayey,		contains 65 percent		depth.	5.5
light-gray-tan:		silt, 15 percent		Sand, medium to fine,	
25 percent very fine		sand.	2.8	tan: 55 percent medium	
sand; slightly iron		Sand, silty, calcareous,		sand, 40 percent fine	
stained	4.1	tan: contains 60		sand, 5 percent fines	1.9
Sand, fine, clayey,		percent sand, 40 per-	4.4	Sand, clayey, gravelly,	
silty, light-brown;		cent silt.	7.2	light-brown: 75 percent	
30 percent fines;		Sand, fine, loose, cal-		medium and fine sand,	
moderately iron		careous, tan: contains		15 percent fines, 10	
stained	2	90 percent fine sand,	5.4	percent fine gravel;	
		10 percent silt	12.6	slightly iron stained	3.9
		Silt, sandy, calcareous;		Sand, fine, silty,	
<b>C2-67-11dccc. Alt. 5,115 ft.</b>		contains 65 percent		slightly cemented,	
Eolian sand:		silt, 15 percent	4.1	light-gray: 25 percent	
Sand, fine to medium,		sand.	16.7	fines; moderately	
loose, angular to sub-		Clay, fine, sandy, cal-		calcareous, highly	
angular, slightly silty,		careous, red-tan; con-		iron stained in frac-	
tan	10	tains 55 percent clay,		tures; iron stained at	
Sand, fine to medium,		15 percent sand, 10		about 43.0 feet; not	
slightly calcareous,		percent silt; mottled		cemented below 44.0	
silty, slightly clayey,		with calcium carbon-	2.7	feet; slight amount of	
tan	4	ate	19.4	clay, 1 to 4 percent.	4.7
Sand, fine to medium,		Sand, fine, tan: con-			46
cemented.	2	tains 90 percent sand,		<b>C2-67-13accc. Alt. 5,140 ft.</b>	
Louviere Alluvium:		10 percent silt	.6	Eolian sand:	
Silt, sandy, calcareous,		Sand, fine, loose,		Sand, fine, clayey, brown:	
slightly bentonitic,		mildly calcareous,		30 percent fines;	
salmon-tan.	9	tan: contains a trace	6.3	moderately calcareous	
Silt, calcareous, sandy,		of silt	26.3	at 3.0 feet.	10
compact, very bentoni-		Silt, sandy, highly		Sand, clayey, brown:	
tic	4	calcareous, tan: con-		20 percent medium and	
Dawson Formation (upper part):		tains 70 percent silt,		coarse sand; slightly	
Shale, variegated	5	30 percent fine sand,	2	calcareous; moisture	
Silt, sandy, very bento-		and a trace of clay	28.3	increasing about 13.0	
nitic, calcareous,		Sand, fine, loose, wet,		feet, clay content de-	
micaceous, at 34		tan: contains a trace		creasing at about 15.5	
feet		of silt; saturated	11.7	feet	8.1
<b>C2-67-11ddcc. Alt. 5,123 ft.</b>		at 29.5 feet.	40	Sand, fine, loose, light-	
Eolian sand:		Sand, fine, tan-brown;		brown: 10 percent	
Sand, very fine to medium,		contains 5 to 7 per-	5.5	fines.	1.9
clayey, poorly sorted,		cent silt and clay.	45.5	Dawson Formation (upper part):	
slightly bentonitic	3	Sand, as above, be-		Sand, as above: 5 to	
Louviere Alluvium:		coming coarse; contains		10 percent fines; wet,	
Silt, sandy, calcareous,		75 percent medium		slightly iron stained,	
slightly bentonitic	3	sand, 15 percent fine		increase in silt at	
Sand, very fine, silty,		sand, 10 percent coarse		about 22.5 feet; sat-	
very calcareous, ben-		sand, pebbles to		urated at about 24.5	
tonitic	4	diameter of 1.0	.9	feet	7.3
Clay and silt, slightly		inches.	46.4	Sand, fine, clayey,	
sandy, tan, micaceous,		Dawson Formation (upper part):		light-brown: 15 per-	
calcareous, bentoni-		Clay, nonplastic, gray-		cent fines; some gravel;	
tic	10	brown: contains iron		contains many gypsefer-	
Clay and silt, sandy,		stains, carbonaceous		ous growths.	2.7
tan, very bentonitic	9	matter, color changing		Sand, clayey, gravelly,	
		to gray-green at 48.5	3.6	slightly calcareous,	
		feet.	50	light-brown: 50 per-	
<b>C2-67-12abbb. Alt. 5,115 ft.</b>		<b>C2-67-13abcb. Alt. 5,130 ft.</b>		sand, 30 percent	
Eolian sand:		Eolian sand:		fine gravels, 20 per-	
Sand, very fine to medium,		Sand, fine, clayey,		cent fines	3.4
subangular to angular,		silty, brown: 30	3.8	Silt, sandy, clayey,	
loose, tan.	15	percent fines	3.8	slightly weathered,	
Louviere Alluvium:		Sand, fine, silty,		medium-gray; moderately	
Sand, fine, clayey, very		loose, moderately		iron stained: 15 per-	
calcareous.	10	calcareous, brown:		cent very fine sand,	
Sand, medium to coarse,		20 percent fines.	3.5	very micaceous	3.3
fairly well-sorted,		Sand, clayey, moderately		Clay, silty, dark-gray:	
very loose, suban-		calcareous, brown:		5 percent fine sand:	
gular to subrounded	10	60 percent fine sand,		color changes to tan-	
Sand, coarse to very		25 to 30 percent fines,		gray, slightly iron	
coarse, well-sorted,		10 percent medium and		stained at about 38.5	
subangular, loose	11	coarse sand	2.7	feet	3.3
Sand, fine clayey, very		Sand, clayey, slightly		<b>C2-67-13babb. Alt. 5,125 ft.</b>	
slightly calcareous;		calcareous, brown:		Eolian sand:	
plastic when wet:		40 percent fines, fines		Sand, poorly sorted, fine	
at 46 feet		decreasing with	7.7	to coarse, angular to	
<b>C2-67-12bcba. Alt. 5,110 ft.</b>		depth	17.7	subangular, loose	
Eolian sand:		Dawson Formation (upper part):		light-brown.	5
Sand.	18	Sand, fine, silty, loose,		Silt, finely sandy and	
Clay.	5	slightly calcareous,		clayey, very calcareous,	
Louviere Alluvium:		light-brown: 20 per-		yellowish-tan.	5
Sand, fine.	17	cent fines, slightly	2.3	Sand, medium to very	
Gravel.	9	iron-stained.	20	coarse, angular to	
Dawson Formation:		Sand, fine, silty, loose,		subangular, loose,	
Clay.	3	light-brown	2.1	tan.	10
Shale	1	Sand, fine, light-brown:		Dawson(?) Formation (upper part):	
<b>C2-67-12bdad. Alt. 5,123 ft.</b>		5 to 10 percent fines,		Sand, coarse, subangular	
Eolian sand:		slightly iron stained;		to subrounded, and	
Clay, sandy	19	saturated at approxi-	4.8	very fine gravel	15
Sand.	4	mately 25.0 feet.	26.9	Sand, medium, clayey,	
Louviere Alluvium:		Sand, fine, clayey,		calcareous	4
Gravel.	12	light-brown: 15 to		Sand, medium to coarse,	
Dawson Formation (upper part):		20 percent medium		loose: contains silt;	
Sandstone, soft	3	and coarse sand, 15		at 39 feet	
Clay, hard, yellow.	2	percent fines; slightly	3.1		
Shale	3	calcareous.	10		
		Sand, fine, clayey, tan-			
		brown: 20 percent			
		fines, 20 percent			
		medium sand; occasional			

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C2-67-13bccc.</b> Alt. 5.140 ft.					
Eolian sand:					
Clay, sandy, slightly bentonitic, pale-gray to pink . . . . .	5	5			
Clay, silty, calcareous, yellowish-gray . . . .	5	10			
Clay, silty, calcareous, yellowish-gray, more compact and firm . . .	1	11			
Clay, as above; contains calcareous materials .	4	15			
Dawson(?) Formation (upper part):					
Clay, very plastic, sticky, mostly silt free, tan to buff . .	10	25			
<b>C2-67-14aaaa.</b> Alt. 5.125 ft.					
Eolian sand:					
Clay, silty, sandy, calcareous, bentonitic, tan . . . . .	3	3			
Verdos Alluvium:					
Clay, sandy, calcareous, bentonitic, cream-white to grayish-orange . .	5	8			
Sand, fine to medium, silty, calcareous, bentonitic . . . . .	5	13			
Clay, silty, sandy, calcareous, bentonitic, grayish-orange .	7	20			
Dawson Formation (upper part):					
Shale, weathered, yellow to brown . . . . .	4	24			
Silt, coarse, and very fine sand, calcareous, slightly bentonitic, dark-tan . . . . .	1	25			
Clay, very bentonitic, tan . . . . .	4	29			
<b>C2-67-14babb.</b> Alt. 5.100 ft.					
Eolian sand:					
Sand, fine to very fine, silty . . . . .	7	7			
Sand, medium to coarse, silty, calcareous, coarse grains, sub-rounded . . . . .	3	10			
Sand, fine to medium, angular to subangular, clayey . . . . .	2	12			
Sand, very fine, angular, finely micaceous; contains some medium gravel . . . . .	3	15			
Sand, very fine, angular; contains some fine gravel, subrounded to rounded . . . . .	2	17			
Dawson Formation (upper part):					
Silt, clayey, sandy, calcareous, cemented, pale-tan . . . . .	8	25			
Sand, coarse to very coarse, subangular to subrounded, coated, calcareous . . . . .	1	26			
Gravel, fine to coarse, poorly sorted, sub-angular, arkosic, loose . . . . .	1	27			
Gravel, very fine to fine, subangular to subrounded, calcareous .	7	34			
Silt, sandy . . . . .	5	39			
<b>C2-67-14bddd.</b> Alt. 5.120 ft.					
Piney Creek Alluvium:					
Sand, fine, silty, dark-brown; 80 percent fine sand, 20 percent clay and silt . . . . .	3.8	3.8			
Clay, fine, sandy, wet, light-brown; 70 percent clay, 30 percent fine sand; very calcareous . . . . .	2.5	6.3			
Sand, fine, silty, loose, wet, slightly calcareous, dark and light-brown; 80 percent fine sand, 15 percent silt . . .	1.9	8.2			
Sand, fine, clayey, loose, wet, very calcareous, tan; 45 percent clay, 35 percent fine sand .	1.3	9.5			
Sand, fine, silty, loose, saturated, very calcareous, tan; 60 percent fine sand, 40 percent silt and clay . . .	5.5	15			
<b>C2-67-14bddd.</b> Alt. 5.071.5 ft.					
Piney Creek Alluvium:					
Sand, fine, clayey, gray-tan; 40 percent fines; highly calcareous below 0.5 feet . . . . .	4.5	4.5			
Silt, sandy, clayey, tan to medium-gray; 20 percent fine sand, moderately iron stained; slightly iron stained at about 7 feet; moderately calcareous at 9 feet .	5.8	10.3			
Sand, fine, silty, brown; 25 to 30 percent fines; slightly clayey, slightly calcareous; clay content increasing at about 13 feet; saturated at 14 feet . . .	5.1	15.4			
Broadway and Louviers Alluvium, undifferentiated:					
Sand, fine, clayey, brown; 35 percent fines, 10 percent lime nodules; highly calcareous at 17.3 feet, moderately iron stained about 18.0 feet; some gravel . .	4.7	20.1			
Gravel, clayey, sandy, loose, brown-gray; 35 percent sand, 15 to 20 percent fines; moderately iron stained . . . . .	8.1	28.2			
Sand, gravelly, loose, tan; contains a trace of clay, 55 percent fine sand, 25 percent medium sand, 20 percent fine gravel, 10 percent coarse gravel . .	1.8	30			
Sand, gravelly, loose, red-tan; 40 percent medium sand, 30 percent fine gravel, 15 percent coarse sand, 15 percent fine sand, trace of clay-silt . .	3.7	33.7			
Dawson Formation (upper part):					
Clay, fine, sandy, blue-gray; 85 percent clay, 15 percent very fine sand, trace of silt; trace iron oxide, moderately iron stained .	6.3	40			
<b>C2-67-15bccc.</b> Alt. 5.084 ft.					
Piney Creek Alluvium:					
Clay . . . . .	17	17			
Broadway Alluvium:					
Gravel . . . . .	13	30			
Dawson Formation:					
Clay . . . . .	3	33			
Shale . . . . .	10	43			
<b>C2-67-15cddd.</b> Alt. 5.100 ft.					
Younger loess:					
Clay, silty, micaceous, bentonitic . . . . .	8	8			
No sample . . . . .	2	10			
Verdos Alluvium:					
Clay, silty to finely sandy, calcareous, bentonitic, pale-orange . . . . .	5	16			
Clay, silty, sandy, bentonitic, noncalcareous, pale-orange . . . . .	5	21			
Clay, silty, sandy, bentonitic, very calcareous, pale-orange . . . . .	3	24			
Gravel, very fine, brown clay, and coarse sand .	6	30			
Gravel, coarse, rounded to subrounded . . . . .	2	32			
Gravel, medium, and sandy clay . . . . .	2	34			
Dawson formation (upper part):					
Silt, gravelly, sandy, very bentonitic, calcareous . . . . .	4.5	38.5			
Shale, gray, at 38.5 feet					
<b>C2-67-15cddd.</b> Alt. 5.120 ft.					
Eolian sand:					
Silt and clay, calcareous, bentonitic . . . . .	4	4			
Dawson Formation (upper part):					
Clay; contains gravel . . . . .	2	6			
Silt and clay, sandy, bentonitic, tan . . . . .	1.5	7.5			
Clay, silty, bentonitic, very calcareous, tan .	4.5	12			
Clay, bentonitic, yellowish-tan . . . . .	6	18			
Clay, slightly silty, calcareous, bentonitic, yellowish-tan . . . .	12	30			
Clay, bentonitic, non-calcareous . . . . .	5	35			
No sample . . . . .	4	39			
Silt, very fine; clay, very bentonitic, slightly calcareous, slightly sandy . . . .	8	47			
Silt, sandy, calcareous, very bentonitic . . . .	2	49			
<b>C2-67-16cddd.</b> Alt. 5.097 ft.					
Broadway Alluvium:					
Silt and clay, sandy, calcareous, salmon-tan; contains montmorillonite . . . . .	5	5			
Clay, silty, medium-brown . . . . .	5	10			
Louviers Alluvium:					
Clay, less sandy, silty, calcareous, bentonitic, salmon-tan . . . . .	5	15			
Clay, sandy; contains silt, as above . . . . .	4	19			
Clay, more sandy; contains silt as above and coarse sand, very fine gravel, and scattered cobbles .	2	21			
Silt, sandy, bentonitic . .	3	24			
Dawson Formation (upper part):					
Rock . . . . .	1	25			
<b>C2-67-16dabc.</b> Alt. 5.078 ft.					
Broadway Alluvium:					
Soil . . . . .	1	1			
Clay, yellow . . . . .	17	18			
Louviers Alluvium:					
Sand . . . . .	16	34			
Dawson Formation (upper part):					
Clay, yellow . . . . .	2	36			
Shale, gray . . . . .	168	204			
Sand, fine . . . . .	12	216			
Shale, gray . . . . .	25	241			
Sandstone, blue . . . . .	17	258			
Shale, gray . . . . .	16	274			
Sandstone, gray . . . . .	4	278			
Shale, gray . . . . .	22	300			
Shale, brown . . . . .	4	304			
Shale, gray . . . . .	44	348			
Dawson Formation (lower part):					
Lime, sandy (middle conglomerate, 348 to 533 feet) . . . . .	4	352			
Sand, fine . . . . .	3	355			
Shale, gray . . . . .	15	370			
Sand, fine . . . . .	11	381			
Shale, gray . . . . .	14	395			
Sand, fine . . . . .	5	400			
Shale, gray . . . . .	9	409			
Sand, fine . . . . .	8	417			
Shale, gray . . . . .	17	454			



Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C2-67-16dabc. --Continued</b>		<b>C2-67-21aada. --Continued</b>		<b>C2-67-22acdc. --Continued</b>	
Sand, fine and gray		Dawson Formation (lower part):		Shale, as above, but	
Shale	15 489	Sandrock, hard, Middle		brownish-gray with	
Shale, gray	31 520	conglomerate, 182 to		greenish tinge	4 47.5
Sand, fine, and gray		415 feet	1 183	Shale, as above,	
Shale	13 533	Clay, blue-gray	10 191	medium-gray	2.5 50
Shale, gray	46 599	Sandrock, hard	1 194	Shale, as above, greenish-	
Lower conglomerate:		Sandstone	7 401	gray: contains iron	
Sand, fine, and gray		Sandrock, hard	1 402	and manganese stains	4 54
Shale	31 630	Sandstone, fine to		Shale, as above, medium-	
Shale, gray, and sand	82 712	medium	13 415	gray: contains car-	
Lime, sandy	1 713	Clay, gray, shaly	44 459	bonaceous streaks and	
<b>C2-67-16dccc. Alt. 5,092 ft.</b>		Lower conglomerate:		flacks	3 57
Broadway Alluvium:		Sandstone, medium	14 473	Shale, light-gray	2 59
Topsoil	1 1	Sand and streaks of		Shale, greenish-gray	2.6 61.6
Clay, silty, light-		clay	7 480	Shale, greenish-gray:	
gray	3 4	Clay, gray	5 485	iron stains	3.5 65.1
Clay, silty, reddish	1 5	Sandstone and streaks of		Silt, fine, sandy,	
Clay, plastic, tan:		clay	5 490	friable, rusty-dark-	
contains isolated		Shale, gray, and clay	45 535	brown: 70 percent silt,	
grains of sand and				30 percent fine sand:	
gravel	15 20			contains minor amount	
Louviers Alluvium:		<b>C2-67-21bdcc. Alt. 5,107.4 ft.</b>		of clay	2.1 67.2
Clay: contains large		Piney Creek Alluvium:		Claystone, grayish-blue:	
pebbles	2 22	Clay	30 30	20 to 30 percent silt:	
Gravel, moist	3 25	Broadway and Louviers Alluvium,		some silt and very fine	
Clay interbedded with		undifferentiated:		sand at 70 feet: micaceous	
gravel	10 35	Gravel	17 47	at 71 feet	5.9 73.1
Dawson Formation (upper part):		Clay	9 56	Sand, silty, very fine,	
Shale, weathered		Sand, fine and gravel	16 72	micaceous	1.1 74.2
(hard drilling)	3 38	Clay	3 75	Shale, dark-gray with	
Shale, hard, gray	8 46	Gravel, coarse	22 97	bluish tinge	4.3 78.5
Shale, soft, gray	2 48			Shale, as above, medium-	
Shale, silty, hard,		<b>C2-67-22acbd2. Alt. 5,141 ft.</b>		gray	11.5 90
gray	15 83	Eolian sand and Verdos(?) Alluvium,		Shale, as above, medium-	
<b>C2-67-20abab. Alt. 5,073 ft.</b>		undifferentiated:		greenish-gray: contains	
Post-Piney Creek alluvium and		Overburden	75 75	some very fine sand	4.7 94.7
Louviers Alluvium, undifferentiated:		Dawson Formation (upper part):		Sandstone, fine-grained,	
Topsoil	2 2	Clay, blue, and shale	155 230	friable, highly micaceous,	
Gravel	10 12	Rock	2 232	medium-gray with bluish	
Dawson Formation (upper part):		Clay and shale	63 295	tinge	2.8 97.5
Clay, blue	8 20	Clay, sandy	13 308	Shale, friable, dark- to	
Soapstone	115 135	Clay	17 325	medium-gray: greenish	
Shale, brown	5 140	Dawson Formation (lower part):		tinge at about 101 feet:	
Soapstone	22 162	Clay, sandy, and coarse		some fine sand at 102	
Sand and shale	4 166	sand [Middle conglom-		feet	6.8 104.3
Soapstone	14 180	erate, 325 to 487		Sandstone, fine-grained,	
Sand and shale, gray	5 185	feet.]	31 356	friable, micaceous,	
Sandstone	17 202	Clay	49 405	grayish-green: contains	
Shale, streaky, and		Shale, sandy, and sand-		some silt and clay with	
sandstone	28 230	rock	7 412	hard layers	2.7 107
Sand and shale	7 237	Clay	38 450	Sandstone, friable, hard,	
Shale, hard	3 240	Clay, sandy	10 460	grayish-green	5.5 112.5
Soapstone	8 248	Clay	18 478	Shale, medium- to dark-	
Sandstone	12 260	Sand, fine	9 487	gray: contains carbon-	
Soapstone	10 270	Clay	48 535	aceous flecks: greenish	
Sandstone	40 310	Lower conglomerate:		tinge at about 116	
Sand and shale	5 315	Sand and sandstone	15 550	feet	6.7 119.2
Soapstone	7 322	Clay	35 585	Sandstone, fine-grained	4 119.6
Sand and shale	15 357	Sandstone	5 590	Shale	8 120.4
Shale	3 360	Clay	4 594	Claystone, subfirm,	
Dawson Formation (lower part):		Sand and sandstone	20 614	micaceous, grayish-	
Middle conglomerate:		Clay	46 660	green	9.6 130
Sandstone	10 370	<b>C2-67-22acdc. Alt. 5,148.2 ft.</b>		Sandstone, fine-grained,	
Soapstone	14 384	Eolian sand:		friable, grayish-green:	
<b>C2-67-21aada. Alt. 5,103 ft.</b>		Topsoil	7 7	light-gray at about	
Younger loess:		Sand, fine, silty, cal-		145 feet	16.5 146.5
Topsoil and clay	19 19	careous, medium-brown:		Shale, subfirm, grayish-	
Louviers Alluvium:		15 to 25 percent silt	5.5 6.2	green: light-gray at	
Clay, sandy	2 21	Sand, fine, loose, cal-		about 158 feet	13 159.5
Clay, gray	5 26	careous, medium-brown:		Sand, fine	1.2 160.7
Sand and gravel	21 47	silt, 5 percent	7.4 13.6	Shale, subfirm, dark-	
Dawson Formation (upper part):		Silt, fine, sandy, clayey,		gray	9.9 170.6
Clay, brown	2 49	compact, calcareous,		Sandstone	8 171.4
Clay, blue, and shale	77 126	medium-brown: 50 per-		Shale	6.6 178
Shale, sandy	12 138	cent silt, 30 percent			
Clay, blue, and shale	13 151	sand, and 15 to 20		<b>C2-67-22bbba. Alt. 5,098 ft.</b>	
Shale, sandy	11 162	percent clay: contains		Younger loess:	
Clay, blue, and shale	28 190	calcium carbonate		Silt, finely sandy, tan	4 4
Sandstone	3 193	streaks	3.9 17.5	Silt, very finely sandy,	
Sandstone and clay	3 196	Louviers Alluvium:		calcareous	2 6
Clay, gray	52 248	Silt, calcareous,		Clay, silty, micaceous,	
Clay, sandy	14 262	compact, buff	1.8 19.3	brown	4 10
Clay, blue-gray, and		Silt, fine, sandy, clayey,		Sand, fine to medium,	
shale	20 282	compact, calcareous,		subangular, loose,	
Shale, dark-blue:		medium-brown: 50 per-		micaceous, tan	3 13
contains some coal	4 286	cent silt, 25 percent		Silt, very calcareous,	
Shale, hard, gray	12 298	clay, and 25 percent		sandy, compact, tan	
Clay, blue, and shale	14 332	sand	7.4 26.7	to salmon-tan	3 16
Sandstone, very fine-		Sand, coarse, gravelly,		Verdos(?) Alluvium:	
grained: contains		loose, light-brown:		Silt, very sandy, ben-	
some ash	2 334	contains subrounded		tonitic, calcareous,	
Clay, blue-gray	13 347	pebbles	8.9 35.6	tan to salmon-tan	6 22
Shale, fine, sandy:		Gravel, fine, sandy,		Gravel, fine to medium,	
contains some ash	5 352	loose, light-brown:		subangular, arkosic,	
Sandrock, hard	1 353	contains subangular		and silt	7 29
Shale, blue-gray, and		cobbles	2.4 38	Gravel, very fine to	
clay	3 358	Gravel, as above: con-		fine, subangular,	
Sandstone, hard	4 362	tains streaks of sand	2 40	clean, loose	5 29.5
Clay, gray, and shale	20 382	Shale, weathered, friable,		Gravel, coarse	9.5 29
		dark-gray: iron oxide		Silt, fine to very fine,	
		stains	3.5 43.5	calcareous, clayey,	
				compact, very bento-	
				nitic	5 44

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C2-67-22bdbb. Alt. 5,108.8 ft.</b>					
Eolian sand:					
Sand, fine, silty, moderately calcareous, light-brown; 10 percent fines; slightly clayey upper part; moisture content increasing at about 4 feet. . . . .	8.7	8.7			
Silt, clayey, sandy, gray-brown; 20 per- cent fine sand. . . . .	3.1	11.8			
Clay, sandy, moderately calcareous, light- brown; slightly iron stained; 25 percent fine sand. . . . .	4.6	16.4			
Silt, clayey, tan-gray; 10 percent fine sand; slightly calcareous with exception of highly calcareous nodules. . . . .	3.1	19.5			
Sand, fine, silty, tan; 20 percent fines; slightly iron stained, moderately calcar- eous. . . . .	1.7	21.2			
Silt, sandy, clayey, tan-gray; moderately iron stained; moder- ately calcareous; occasional large hard lime nodules; color changes to light- gray at about 26 feet. . . . .	6.2	27.4			
Sand, clayey, brown; 35 percent fines; occasional pebbles, slightly calcareous, slight iron stains, occasional small lime nodules. . . . .	2.4	29.8			
Sand, brown; 15 to 40 percent fines, 2 to 4 percent carbonaceous material. . . . .	3.9	33.7			
Verdoes (?) Alluvium:					
Sand, gravelly, saturated, brown-gray; 10 percent gravel (maximum diameter 3 inches), 25 percent medium sand, 20 percent coarse sand, 20 percent fine sand, 5 percent fines, occasional cobble; rounded to well-rounded, grains have sphericity. . . . .	6	39.7			
Sand, clayey, iron stained, partly ce- mented with iron, brown-gray. . . . .	2.6	42.3			
Sand, silty, fine, slightly iron stained, light-gray. . . . .	1.9	44.2			
Sand, clayey, dark-gray	.8	45			
<b>C2-67-22dbad. Alt. 5,146.3 ft.</b>					
Eolian sand:					
Topsoil. . . . .	1.2	1.2			
Silt, sandy, compact, medium-brown. . . . .	1	2.2			
Sand, silty, fine, loose, calcareous, light-brown. . . . .	5.4	7.6			
Silt, sandy, loose, medium-brown; contains calcium carbonate streaks. . . . .	2.4	10			
Verdoes Alluvium:					
Silt, as above, with pebbles. . . . .	6.1	16.1			
Silt, compact, light- gray; contains small amount of montmorillo- nite at about 19 feet	4.1	20.2			
Sand, silty, fine, compact, medium-brown, moderately calcareous; contains a few small pebbles at about 22 feet. . . . .	1.5	23.7			
Sand, fine to medium, clayey, calcareous, brown. . . . .	.1	24			
Sand, coarse, loose, light-brown; pebbles as large as 1 inch in diameter. . . . .	4.8	28.8			
Gravel, sandy, loose, light-brown to gray;					
<b>C2-67-22dbab.--Continued</b>					
cobbles up to 2 inches in diameter. . . . .	2.7	31.5			
Silt, sandy, calcareous, medium-brown; iron stains. . . . .	.6	32.1			
Gravel, sandy, loose, light-gray; contains small cobbles, 50 percent fines. . . . .	5.6	37.7			
Dawson Formation (upper part):					
Claystone, weathered, bentonitic, medium- gray; contains iron oxide stains. . . . .	2.3	40			
<b>C2-67-22diba. Alt. 5,152.7 ft.</b>					
Eolian sand:					
Topsoil. . . . .	1	1			
Silt, sandy, compact, calcareous, light- brown. . . . .	1.8	2.8			
Sand, silty, fine, loose, calcareous, medium-brown. . . . .	3.5	6.3			
Verdoes Alluvium:					
Silt, light-gray and grayish-yellow. . . . .	2	8.3			
Sand, fine, calcareous, medium-brown; contains calcium carbonate streaks and mont- morillonite clay. . . . .	4.5	12.8			
Silt, calcareous, com- pact, buff to light- brown; contains mont- morillonite clay. . . . .	5.6	18.4			
Sand, medium, compact, moderately calcareous, medium-brown, and silt	3.2	21.6			
Sand, silty, fine, cal- careous, medium-brown	2.9	24.5			
Silt, clayey, compact, calcareous, light- gray. . . . .	2.9	27.5			
Sand, coarse, gravelly, loose, medium-gray; contains coarse gravel. . . . .	5.2	32.6			
Gravel, sandy, loose, light-gray; contains small pebbles; sat- urated at 39 feet. . . . .	7.4	40			
Gravel, sandy, loose, medium-brown; contains 5 percent clay and plastic fines. . . . .	6.1	46.1			
Gravel, clayey. . . . .	1.5	47.6			
Dawson Formation (upper part):					
Claystone, weathered, subfirm, medium-gray	1.4	49			
<b>C2-67-23abdb. Alt. 5,150.1 ft.</b>					
Eolian sand:					
Topsoil. . . . .	.9	.9			
Verdoes Alluvium:					
Silt, clayey, light- brown; medium-brown from 1 to 5 feet; wet at about 7 feet; contains volcanic ash. . . . .	6.9	7.8			
Sand, coarse, loose, saturated, light- brown. . . . .	4.1	11.9			
Dawson Formation (upper part):					
Claystone, weathered, dark-gray. . . . .	4.4	16.3			
Silt, sandy, loose, yellowish-brown. . . . .	1.8	18.1			
Shale, weathered, sub- firm, slightly cal- careous, medium-gray; iron stained. . . . .	1.9	20			
<b>C2-67-24aada. Alt. 5,193 ft.</b>					
Eolian sand:					
Topsoil. . . . .	.8	.8			
Sand, silty, fine, loose, calcareous, medium- brown. . . . .	7.5	8.3			
Silt, loose, damp, cal- careous, medium-brown	2.9	11.2			
Verdoes Alluvium:					
Silt, calcareous, com- pact, buff; contains montmorillonite clay	1.3	12.5			
Silt, sandy, clayey, compact, medium-brown; contains calcareous streaks. . . . .	4.2	16.7			
Sand, silty, fine, com- pact, calcareous, medium-brown. . . . .	2.6	19.3			
<b>C2-67-24aada.--Continued</b>					
Sand, medium to coarse, loose, calcareous, dry, medium-brown; contains very fine gravel. . . . .	1.9	21.2			
Silt, clayey, compact, medium-brown; contains calcareous streaks, sandy at about 23 feet	5.2	26.4			
Sand, silty, fine, medium-gray. . . . .	1.7	28.1			
Clay, sandy, calcareous, greenish-gray; contains gravel. . . . .	.9	29			
Dawson Formation (upper part):					
Shale, weathered, slightly calcareous, medium-gray; contains iron oxide streaks. . . . .	5	34			
Siltstone, weathered, laminated, brownish- gray. . . . .	1.4	35.4			
Shale, weathered, maroonish-gray; con- tains leaf impressions and carbonaceous streaks and flecks. . . . .	2.6	38			
<b>C2-67-24dbcd. Alt. 5,169.3 ft.</b>					
Eolian sand:					
Silt, fine, sandy, com- pact, dark-brown; contains 15 to 20 percent sand. . . . .	2.7	2.7			
Sand, fine, silty, com- pact, calcareous, light- to medium-brown; 10 to 20 percent silt	7.3	10			
Sand, as above, but 15 to 25 percent silt. . . . .	3.2	13.2			
Sand, fine to medium, loose, wet, light- brown. . . . .	4.1	17.3			
Sand, fine, silty; sat- urated at 18.5 feet.	2.9	20.2			
Sand, fine to medium, loose, light-brown. . . . .	3.2	23.4			
Dawson Formation (upper part):					
Shale, weathered, medium- gray; contains iron stains; carbonaceous flecks and a blue tinge at about 29 feet. . . . .	6.1	29.5			
<b>C2-67-25bdad. Alt. 5,224.0 ft.</b>					
Eolian sand:					
Topsoil. . . . .	.4	.4			
Silt, sandy, light- medium-brown; contains some gravel. . . . .	3.7	4.1			
Silt, compact, calcareous, buff; contains very coarse gravel. . . . .	.8	4.9			
Verdoes Alluvium:					
Gravel, clayey, compact, calcareous, grayish- brown; contains small cobble. . . . .	9.9	14.3			
Silt, sandy, clayey, brownish-gray; contains medium gravel. . . . .	2.4	17.2			
Sand, silty, clayey, brownish-gray, calcareous; contains very fine gravel. . . . .	1.2	20.4			
Gravel, clayey, calcareous, brownish-gray. . . . .	2.2	22.6			
Sand, silty, clayey, brownish-gray; contains some medium gravel. . . . .	3.3	25.9			
Sand, fine, loose, brownish-gray, yellow- ish-green, and light- brown. . . . .	8.8	34.7			
Dawson Formation (upper part):					
Shale, weathered, medium- gray; contains iron oxide stains. . . . .	4.3	39			

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C2-67-25bdad. Alt. 5,224.0 ft.</b>		<b>C2-67-26apac.--Continued</b>		<b>C2-67-26abac.--Continued</b>	
Eolian sand:		Shale, silty, gray: contains		quartzitic, gray to	
Topsoil . . . . .4		a trace of siltstone 10		green. . . . .10	
Silt, sandy, light-		Siltstone to very fine-		Shale, silty, gray to	
medium-brown; contains		grained sandstone, gray		gray-green . . . . .10	
some gravel . . . . .3.7		to black, salt and pepper.		Shale, dark-gray . . . . .50	
Silt, compact, calcareous,		shaly; contains carbon-		Siltstone, shaly, light-	
buff; contains very		aceous inclusions . . . . .10		gray; contains some	
coarse gravel . . . . .8		Shale, silty, light-		glauconite . . . . .40	
Verdos Alluvium:		gray. . . . .10		Shale, dark-gray . . . . .10	
Gravel, clayey, compact,		Gravel, medium to very		Siltstone, hard, gray. . . . .10	
calcareous, grayish-		coarse, clear to buff 10		Shale, gray to dark-	
brown; contains small		Shale, gray . . . . .10		gray, in part silt,	
cobbles . . . . .9.9		Shale, gray, in part		Siltstone, grading to	
Silt, sandy, clayey,		silty . . . . .40		very fine-grained	
calcareous, brownish-		Dawson Formation (lower part):		sandstone, gray; very	
gray; contains medium		Gravel to sand, clear		glauconitic. . . . .10	
gravel. . . . .2.4		to white to brown		Shale and siltstone. . . . .15	
Sand, silty, clayey,		[Middle conglomerate,		Shale, gray to dark-	
brownish-gray, calcar-		370 to 480 feet.] . . . . .10		gray . . . . .5	
eous; contains very		Sand, medium to coarse,		Siltstone, medium hard,	
fine gravel . . . . .3.2		clear to buff . . . . .10		white to gray. . . . .10	
Gravel, clayey, calcar-		Shale, gray . . . . .20		Sandstone, silty . . . . .10	
eous, brownish-gray 2.2		Sand, coarse to very		Siltstone, medium hard,	
Sand, silty, clayey,		coarse, clear to buff 20		white to gray. . . . .10	
brownish-gray; contains		Sand, coarse to very		Shale, dark-gray . . . . .40	
some medium gravel. . . . .3.3		coarse, clear to buff,		Coal . . . . .30	
Sand, fine, loose,		and gray shale. . . . .10		Sandstone, fine- to	
brownish-gray, yellow-		Shale, silty gray. . . . .10		medium-grained, loosely	
ish-green, and light-		Sand, coarse, grading		consolidated, clear	
brown . . . . .8.8		to gravel, clear to		to white; contains	
Dawson Formation (upper part):		buff. . . . .20		subangular grains (B	
Shale, weathered, medium-		Sandstone, medium-grained,		sandstone, 1,250 to	
gray; contains iron		quartz, shaly, soft,		1,325 feet.) . . . . .40	
oxide stains. . . . .4.3		grays to black; con-		Shale, silty, gray to	
C2-67-25dcca. Alt. 5,229.6 ft.		tains carbonaceous		dark-gray. . . . .10	
Eolian sand and Dawson Formation		inclusions. . . . .10		Sandstone, fine- to	
(upper part), undifferentiated:		Shale, gray to gray-		medium-grained . . . . .23	
Topsoil . . . . .6		green . . . . .40		Shale, silty gray. . . . .4	
Silt, sandy, medium-brown;		Shale, gray to gray-		Sandstone, fine- to	
calcareous at about		green, siltstone, and		medium-grained, shaly,	
2 feet; more sandy		very fine-grained gray		loosely consolidated,	
with minor amount of		to white sandstone;		clear to white; contains	
clay at about 8 feet 18.2		contains some mica		traces of glauconite,	
Dawson Formation (upper part):		and trace of glau-		pyrite, and carbonaceous	
Silt, sandy, clayey,		conite. . . . .40		inclusions; sand grains	
compact, calcareous,		Shale, gray . . . . .20		are subangular (A sand-	
medium-brown; contains		Shale, gray, and gray		stone, 1,327 to 1,380	
some fine gravel. . . . .5.8		medium hard silt-		feet.) . . . . .53	
Clay, silty, semiplastic,		stone . . . . .10		Shale, dark-gray, and	
calcareous, medium-		Shale, gray . . . . .15		silty sandstone. . . . .10	
brown . . . . .10.6		Siltstone, gray, hard,		Fox Hills Sandstone:	
Silt, sandy, loose,		shaly, and fine-grained		Milliken Sandstone Member:	
micaceous, calcareous,		sandstone (lower con-		Sandstone, very fine- to	
light-gray. . . . .9		glomerate, 605 to 700		fine-grained, shaly,	
Sand, fine, loose, light-		feet.) . . . . .15		loosely consolidated,	
gray. . . . .1.9		Shale, silty, gray. . . . .20		gray to white; contains	
Silt, sandy, semiplastic,		Siltstone, gray,		trace of glauconite;	
calcareous, grayish-		medium hard, to very		sand grains are sub-	
brown; contains some		fine-grained sand-		angular. . . . .20	
clay; streaks of sat-		stone . . . . .10		Sandstone, fine- to	
urated sand at about		Siltstone to medium-		medium-grained, shaly,	
45 feet . . . . .12		grained sandstone . . . . .10		loosely consolidated,	
Sand, fine to medium,		Shale, gray . . . . .20		gray to white; contains	
loose, brownish-gray 1.2		Sand, coarse, clear to		trace of glauconite;	
Shale, weathered, rusty-		buff. . . . .20		sand grains are sub-	
brown; contains car-		Laramie Formation:		angular. . . . .25	
bonaceous matter and		Shale, gray . . . . .10		Transition zone:	
plant impressions;		medium-grained, shaly,		Shale, silty, gray, dark-	
slightly calcareous 2		soft, white to gray;		gray, and gray-brown 65	
Coal (lignite), weathered;		contains carbonaceous		Shale, gray and gray-	
contains small pieces		inclusions. . . . .20		green, in part silty 40	
of amber, very hard		Shale, silty, gray. . . . .10		Shale, gray to dark-	
from 54.0 to 56.0		Shale, silty, gray,		gray . . . . .30	
feet. . . . .2.8		and gray shaly silt-		Shale, gray to dark-	
C2-67-26abac. Alt. 5,197.3 ft.		stone . . . . .10		gray, and white to	
Verdos Alluvium and Dawson(?)		Shale, silty, gray. . . . .25		gray siltstone . . . . .20	
Formation, undifferentiated:		Sandstone, fine- to		Shale, gray to dark-	
Conglomerate, quartz,		medium-grained, shaly,		gray, in part silty. . . . .50	
angular, unconso-		gray. . . . .11		Siltstone, white to	
lided . . . . .90		Shaly, silty gray; con-		gray . . . . .20	
Dawson Formation (upper part):		tains carbonaceous		Siltstone, white to	
Shale, dark-gray. . . . .60		inclusions. . . . .14		gray, and gray to	
Sand, medium, rounded,		Shale, silty, gray;		dark-gray shale. . . . .50	
unconsolidated, white,		contains carbonaceous		Siltstone, shaly, gray 10	
[Upper conglomerate,		inclusions and some		Shale, gray to dark-	
150 to 190 feet.] . . . . .6		siltstone grading to		gray, in part silty. . . . .30	
Gravel, very coarse,		shaly gray fine-		Shale, gray to dark-	
clear to buff; con-		grained sandstone . . . . .40		gray, siltstone grading	
tains light-gray shale		Shale, silty, gray,		to fine-grained white	
from 160 to 170 feet 14		siltstone and shaly		to gray salt and	
Shale, gray to light-		gray fine-grained		pepper medium hard	
gray. . . . .10		sandstone; contains		sandstone; contains	
Shale, gray to light-		a trace of coal . . . . .40		some glauconite. . . . .70	
gray; contains gravel 10		Shale, silty, gray. . . . .10		Pierre Shale:	
Shale, gray . . . . .60		Shale, silty, gray and		Shale, gray to dark-	
Shale, silty. . . . .20		gray-green. . . . .70		gray, in part silty. . . . .210	
Siltstone, compact, gray		Shale, silty, gray;		No record. . . . .20	
to gray-green, and		contains a trace of		Siltstone, gray, hard,	
gray silty shale . . . . .10		coal. . . . .10		and silty light-gray	
		Siltstone, glauconitic,		shale. . . . .50	
		hard, grading to			

Table 1.--Log of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C2-67-26abac</b> --Continued		<b>C2-67-26adda</b> . Alt. 5,220.0 ft. Eolian sand:		<b>C2-67-29ccdd</b> --Continued	
Siltstone, shaly, medium hard, gray; contains trace of pyrite from 2,130 to 2,140 feet	60 2,160	Topsoil	6	Shale, sandy, gray	22 184
Shale, silty, gray, and gray shaly medium hard siltstone	40 2,200	Silt, sandy, compact, dark-brown	2.1 2.7	Sandstone, calcareous, cemented, blue-gray	16 400
Siltstone, shaly, hard, gray	230 2,430	Sand, fine, silty, calcareous, medium-brown	3.1 5.8	Shale, gray, interbedded with sand	15 415
Shale, very silty, gray	10 2,440	Verdors Alluvium:		Sandstone, fine, well-cemented, gray	6 421
Siltstone, shaly, hard, gray	10 2,470	Silt, clayey, loose semiplastic, calcareous, medium-brown; contains calcium carbonate streaks and sand	9.2 15	Shale, gray	4 425
Shale, very silty, gray	10 2,480	Silt, as above; contains more sand	8.4 23.4	Dawson Formation (lower part): Sandstone, gray; contains streaks of shale	
Shale, very silty, gray, and gray shaly hard siltstone	50 2,530	Silt, clayey, semiplastic, calcareous, medium-brown; contains very coarse gravel	6.6 30	Middle conglomerate, 425 to 570 feet	13 438
Siltstone, white to gray, soft to friable, grading to fine-grained sandstone; contains gray silty shale between 2,540 and 2,550 feet	20 2,550	Sand, coarse, loose, calcareous, medium-brown; contains small cobbles	2.1 32.1	Sand, fine	5 443
Shale, silty, gray	10 2,560	Sand, fine to medium, loose, calcareous, medium-brown contains very coarse gravel	8.3 40.6	Shale, sandy	11 454
Sandstone, fine to very fine-grained, white to gray, soft	10 2,570	Gravel, coarse, loose, brownish-gray, sand, and small cobbles	1.3 41.9	Sand, fine, cemented	10 464
Shale, silty, gray; contains trace of gypsum between 2,600 and 2,610 feet	40 2,610	Sand, fine, loose, saturated, greenish-gray	4.3 46.2	No sample	8 472
Shale, silty, gray, and clear to buff, coarse to very coarse sand	20 2,630	No sample	5.8 52	Sand, fine, soft, gray	2 481
Shale, silty, gray, and gray medium hard siltstone	10 2,640	Dawson Formation (upper part): Sand, fine, loose, greenish-gray; contains layers of clay and silt	2 54	Shale	6 487
Siltstone, medium hard, gray	10 2,650	Siltstone, sandy, compact, laminated, light-brown	2 56	Sand, fine, soft, clean, well-rounded, gray	13 500
Siltstone, hard, quartzitic, gray to gray-green, shaly from 2,660 to 2,670 feet	20 2,670	<b>C2-67-27baab</b> . Alt. 5,134.0 ft. Eolian sand:		Shale and interbedded thin layers of shaly sand	37 537
Siltstone, white, grading to very fine-grained soft glauconitic sandstone	30 2,700	Topsoil	.8	Sand, fine, soft, clean	15 552
Shale, silty, gray	10 2,710	Sand, silty, fine	3.5 4.3	Shale, sandy	4 556
Siltstone, soft, gray	20 2,730	Silt, clayey, sandy, fine	23.3 27.6	Sand, fine, soft, clean	14 570
Sandstone, fine-grained, soft, gray to white	20 2,750	Clay, silty	10.2 37.8	Shale, gray and brown	42 612
Siltstone, shaly, hard, brown	10 2,760	Louviers Alluvium:		Sand, fine, shaly	18 630
Shale, silty, gray	10 2,770	Sand, silty, fine	3.9 41.7	Shale, gray and brown	20 650
Siltstone, gray to white, grading to fine-grained medium hard sandstone	10 2,780	Sand, fine to medium	2.8 44.5	Lower conglomerate:	
Shale, silty, gray	120 2,900	Sand, coarse	6 50.5	Sand, fine	20 670
Siltstone, hard, white to gray	10 2,910	Clay, silty	6.7 57.2	Shale, gray	15 685
Shale, silty, gray	20 2,930	Gravel, coarse, sandy	6 63.2	Sandstone, gray; contains thin shale layers throughout	23 708
Siltstone, medium hard, gray	10 2,940	Dawson Formation:		Shale, very sandy in thin layers	27 735
Shale, silty, gray	70 3,010	Shale	1.8 65	Sand, fine	10 745
Siltstone, hard, white to gray	10 3,020	<b>C2-67-28aabd</b> . Alt. 5,120 ft. Eolian sand:		Shale, sandy	5 750
Shale, silty, gray	10 3,030	Topsoil	5	Sand, fine, becomes shaly	25 775
Siltstone, shaly, medium soft, gray; contains trace of gypsum between 3,050 and 3,060 feet	30 3,060	Sand	8 13	Shale, gray	7 782
Shale, silty, gray	10 3,070	Louviers Alluvium:		Sand, shaly, and shale	8 790
Siltstone, hard, gray	60 3,130	Clay	14 27	<b>C2-67-30abaa</b> . Alt. 5,071 ft. Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
Shale, silty, gray	30 3,160	Sand and gravel	23 50	Overburden	30 10
Siltstone, medium hard, gray to white	20 3,180	Clay	21 71	Dawson Formation (upper part):	
Shale, gray, in part silty	340 3,520	Sand, gravel, and rock	6 77	Clay, blue	132 162
Niobrara Formation:		Dawson Formation:		Sandstone	3 165
Benton Shale:	8,076	Shale	5 82	Clay, blue	75 240
Dakota Group:	8,485	<b>C2-67-29ccdd</b> . Alt. 5,123.5 ft. Piney Creek Alluvium:		Shale	12 252
South Platte Formation:	8,633	Soil	2 2	Clay, blue	33 285
Lytle Formation:	8,786	Clay, sticky, yellow to gray	23 25	Shale	10 295
Morrison Formation:	8,972	Dawson Formation (upper part):		Clay, blue	51 346
Lykins Formation:	9,582	Shale, blue and gray	13 38	Dawson Formation (lower part):	
Lyons Sandstone:	9,772	Sandstone, fine, cemented	22 60	Middle conglomerate:	
Pountrain Formation:	11,895	Shale, sticky, blue and gray	33 93	Sandstone and sand	14 360
Ordovician (?)	11,974	Sandstone, fine, gray	3 96	Clay, blue	35 395
Precambrian:	12,045	Shale, gray	4 100	Sand and sandstone	13 408
Total depth of well (Formation tops only given in this log, beginning with Niobrara Formation.)		Sandstone, fine, gray	5 105	Clay, blue	12 420
		Sand, lime cemented	5 110	<b>C2-67-31ddcd</b> . Alt. 5,155 ft. Broadway and Louviers Alluvium, undifferentiated:	
		Sandstone, fine, well-cemented, gray	15 125	Sand and gravel	47 47
		Shale, blue-gray	23 148	Dawson Formation (upper part):	
		Sand, fine; contains coal (lignite)	7 155	Clay, yellow	1 48
		Shale, gray	67 222	Shale, gray	11 59
		Coal (lignite)	10 232	Sandstone, gray	5 64
		Shale, gray; becomes sandy	36 268	Shale, gray	206 270
		Sand, fine, soft, clean	12 280	Sand, fine	8 278
		Shale, sandy	22 302	Shale, gray	65 343
		Sand, fine, soft, clean	16 318	Sandstone, gray	17 360
		Shale, gray	28 346	Shale, gray	31 391
		Sandstone, hard, cemented	16 362	Sand	6 397
				Shale, gray	52 449
				Lime, sandy	5 454
				Shale, sandy	7 461
				Dawson Formation (lower part):	
				Sand, medium fine, and gray shale (Middle conglomerate, 461 to 535 feet)	54 515
				Shale, gray	11 526
				Sand	9 535
				Shale, gray	72 607
				Lower conglomerate:	
				Sand, fine	12 619
				Shale, gray	46 665
				Sand, fine	13 678
				Shale, gray	30 708
				Sand, fine	14 722
				Sand and shale	12 734
				Shale, gray	17 751

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C2-67-13aadd. Alt. 5,150.0 ft.</b>					
Eolian sand:					
Topsoil and sand. . . . .	10	10			
Louviers Alluvium:					
Sand, coarse. . . . .	10	20			
Gravel, coarse, and clay. . . . .	10	30			
Gravel, coarse. . . . .	20	50			
Clay, sandy. . . . .	10	60			
Gravel, coarse. . . . .	40	100			
Dawson Formation (upper part):					
Shale. . . . .	10	110			
Shale, hard. . . . .	40	170			
Shale. . . . .	10	180			
Shale, hard. . . . .	10	190			
Shale. . . . .	90	280			
Sand [Upper conglomerate, 280 to 420 feet.] . . . .	140	420			
Shale. . . . .	120	540			
Dawson Formation (lower part):					
Sand [Middle conglomerate, 540 to 660 feet.] . . . .	120	660			
Shale. . . . .	80	740			
Lower conglomerate:					
Sand. . . . .	20	760			
Shale. . . . .	22	782			
<b>C2-67-13addc. Alt. 5,170.3 ft.</b>					
Eolian sand:					
Topsoil. . . . .	.9	.9			
Sand, silty, fine. . . . .	1.8	2.7			
Sand, fine. . . . .	4.5	7.2			
Silt, sandy, clayey. . . . .	5.6	12.8			
Sand, fine. . . . .	3.9	16.7			
Louviers Alluvium:					
Sand, medium. . . . .	15	31.7			
Silt, sandy, clayey. . . . .	3.1	34.8			
Sand, fine. . . . .	11.4	46.2			
Sand, silty, fine. . . . .	2.9	49.1			
Sand, coarse, gravelly. . . . .	17.8	66.9			
Gravel, coarse, sandy. . . . .	4.6	71.5			
Sand, coarse, gravelly. . . . .	5.8	77.3			
Sand, fine, clayey, silty. . . . .	3.9	81.2			
Dawson Formation:					
Shale, weathered. . . . .	.8	82			
<b>C2-67-15adag. Alt. 5,236.4 ft.</b>					
Eolian sand:					
Topsoil. . . . .	.9	.9			
Silt, sandy. . . . .	1.4	2.3			
Verdos(?) Alluvium:					
Sand, fine, silty. . . . .	19.3	21.6			
Silt, clayey. . . . .	3.1	24.7			
Sand, fine, silty. . . . .	4.5	29.2			
Silt, clayey. . . . .	10.1	39.3			
Dawson Formation (upper part):					
Siltstone, weathered. . . . .	2.7	42			
<b>C2-67-15bbdd. Alt. 5,210.0 ft.</b>					
Eolian sand:					
Topsoil. . . . .	.9	.9			
Silt, sandy. . . . .	1.5	2.4			
Sand, fine, silty. . . . .	2.1	4.5			
Silt, sandy. . . . .	4.8	9.3			
Verdos Alluvium:					
Silt, calcareous; contains montmorillonite. . . . .	2	11.3			
Sand, fine, silty. . . . .	1.4	12.7			
Silt, clayey. . . . .	5.4	18.1			
Silt, sandy, clayey. . . . .	8.4	26.5			
Gravel, sandy. . . . .	4.9	31.4			
Dawson Formation (upper part):					
Sand, fine, partially cemented; contains uniformly disseminated black grains. . . . .	9.8	41.2			
Graywacke, weathered. . . . .	.9	42.1			
Sand, fine. . . . .	1.1	43.2			
No sample. . . . .	1.8	45			
<b>C2-67-16bbda. Alt. 5,238.9 ft.</b>					
Eolian sand:					
Topsoil. . . . .	.7	.7			
Silt, sand. . . . .	1.9	2.6			
Silt, clayey. . . . .	3.7	6.3			
Sand, fine, silty. . . . .	3.1	9.4			
Silt, clayey, sandy. . . . .	3.3	12.7			
Sand, fine, silty. . . . .	2.7	15.4			
Silt, clayey. . . . .	1.1	16.5			
Silt, sandy, soft, calcareous. . . . .	.7	17.2			
Silt, clayey. . . . .	1.1	18.3			
Sand, fine, silty, loose; wet at 20 feet. . . . .	2.5	20.8			
Silt, sandy. . . . .	2.1	22.9			
Dawson Formation (upper part):					
Shale, weathered. . . . .	5.2	28.1			
Silt, clayey, and laminated silty clay. . . . .	1.9	30			
<b>C2-68-4cagad. Alt. 5,360 ft.</b>					
Overburden. . . . .					
Dawson Formation (lower part):					
Clay, blue. . . . .	4	64			
Middle conglomerate:					
Sand and sandstone. . . . .	6	70			
Clay, blue, and shale. . . . .	190	260			
Lower conglomerate:					
Sand and sandstone. . . . .	22	282			
Clay. . . . .	6	288			
Sand and sandstone. . . . .	19	307			
Clay and shale. . . . .	23	330			
Sand and sandstone. . . . .	14	344			
Clay and shale. . . . .	43	387			
Shale and hard rock. . . . .	3	390			
Sand, coarse. . . . .	5	395			
Laramie Formation:					
Shale. . . . .	4	399			
Coal. . . . .	1	400			
Shale. . . . .	20	420			
Sandstone and two streaks of sand. . . . .	13	433			
Coal. . . . .	1	434			
Shale. . . . .	66	500			
Sandstone. . . . .	6	506			
Clay and shale. . . . .	94	600			
<b>C2-68-10bbaa. Alt. 5,450 ft.</b>					
Dawson Formation (upper part):					
Clay. . . . .	5	5			
Sandstone. . . . .	17	22			
Soapstone. . . . .	15	37			
Sandstone. . . . .	33	70			
Soapstone. . . . .	15	85			
Shale, gray. . . . .	55	140			
Shale, brown. . . . .	3	143			
Shale, gray. . . . .	82	225			
Dawson Formation (lower part):					
Sandstone [Middle conglomerate, 225 to 445 feet.] . . . .	15	240			
Shale, gray. . . . .	59	299			
Sandstone. . . . .	26	325			
Shale, gray. . . . .	77	402			
Iron rock. . . . .	2	404			
Shale, gray. . . . .	11	415			
Sandstone. . . . .	10	425			
Shale, blue. . . . .	15	440			
Sandstone. . . . .	5	445			
Shale, brown. . . . .	15	480			
Sandstone. . . . .	15	495			
Shale, gray. . . . .	20	515			
Lower conglomerate:					
Sand (water). . . . .	20	535			
Sand and shale. . . . .	30	565			
Shale, gray. . . . .	25	590			
Sandstone (water). . . . .	42	632			
Shale, gray. . . . .	33	665			
Sandstone. . . . .	5	670			
Sand and shale. . . . .	30	700			
<b>C2-68-15abab. Alt. 5,383 ft.</b>					
Overburden. . . . .					
Dawson Formation (upper part):					
Clay, blue. . . . .	60	120			
Sandstone. . . . .	10	130			
Clay, blue, and shale. . . . .	40	170			
Sandstone. . . . .	8	178			
Clay and shale. . . . .	32	210			
Sandstone. . . . .	6	216			
Clay and shale. . . . .	64	300			
Dawson Formation (lower part):					
Sand, coarse, cemented [Middle conglomerate, 300 to 450 feet.] . . . .	11	311			
Clay and shale. . . . .	17	328			
Sand, tight. . . . .	9	337			
Clay and shale. . . . .	63	400			
Sandstone, hard. . . . .	10	410			
Shale. . . . .	27	437			
Sandstone. . . . .	13	450			
Shale, hard. . . . .	55	505			
Lower conglomerate:					
Sand and sandstone. . . . .	15	520			
Shale. . . . .	45	565			
Sand and sandstone. . . . .	5	570			
Shale. . . . .	25	595			
Sand and sandstone. . . . .	7	602			
Laramie Formation:					
Clay and shale. . . . .	723	825			
<b>C2-68-17acbc. Alt. 5,550 ft.</b>					
Dawson Formation (upper part):					
Surface material. . . . .	8	8			
Clay, sandy. . . . .	34	42			
Sandrock. . . . .	8	50			
Shale, sandy. . . . .	20	70			
Shale. . . . .	15	85			
Shale, sandy. . . . .	5	90			
Sand, hard. . . . .	15	105			
Shale, blue. . . . .	45	150			
Shale. . . . .	30	180			
Shale, sandy. . . . .	53	233			
<b>C2-68-17acbc. --Continued</b>					
Sand and sandy shale. . . . .					
Shale, hard, blue. . . . .	3	241			
Dawson Formation (lower part):					
Sand [Middle conglomerate, 245 to 478 feet.] . . . .	45	290			
Shale, sandy. . . . .	10	300			
Shale. . . . .	125	425			
Clay, sandy. . . . .	5	430			
Sand, hard; pyrite. . . . .	2	432			
Sand. . . . .	28	460			
Sandstone, hard. . . . .	15	475			
Sand. . . . .	3	478			
Shale. . . . .	4	482			
Shale, sandy. . . . .	48	530			
Shale. . . . .	46	576			
Lower conglomerate:					
Sand. . . . .	14	590			
Shale, hard. . . . .	90	680			
Sandrock, hard. . . . .	2	682			
Sandstone, soft. . . . .	5	688			
Sandstone, hard. . . . .	3	697			
Gravel, hard. . . . .	2	699			
Clay and shale. . . . .	3	702			
Sand, hard. . . . .	3	705			
Clay and shale. . . . .	27	732			
Shale, soft. . . . .	22	754			
Rock. . . . .	1	755			
Shale. . . . .	100	855			
Sandstone, hard. . . . .	5	860			
Shale and soft clay. . . . .	10	890			
Sandstone, hard. . . . .	2	892			
Clay and shale. . . . .	2	894			
Rock. . . . .	1	895			
Sand or gravel. . . . .	15	910			
Clay and shale. . . . .	19	929			
Gravel. . . . .	2	931			
Laramie Formation:					
Shale, soft. . . . .	14	945			
Clay and shale. . . . .	28	973			
Sandstone, hard. . . . .	3	976			
Shale and clay. . . . .	29	1,005			
Sandstone. . . . .	5	1,005.5			
Sand and clay; trace of sulfur. . . . .	14.5	1,020			
Rock. . . . .	3	1,023			
<b>C2-68-19ddca. Alt. 5,528 ft.</b>					
Dawson Formation (upper part):					
Soil. . . . .	2	2			
Clay, sandy, yellow. . . . .	15	17			
Clay, yellow. . . . .	34	51			
Shale, light-gray. . . . .	25	76			
Shale, blue. . . . .	3	79			
Shale, gray. . . . .	4	83			
Shale, blue. . . . .	4	87			
Shale, gray. . . . .	17	104			
Shale, blue. . . . .	7	111			
Shale, gray. . . . .	6	117			
Sandstone, blue. . . . .	3	120			
Shale, gray. . . . .	31	151			
Sandstone, gray. . . . .	4	155			
Shale, gray. . . . .	27	182			
Dawson Formation (lower part):					
Sand [Middle conglomerate, 182 to 408 feet.] . . . .	4	186			
Sandstone, hard, white. . . . .	5	191			
Sand. . . . .	30	221			
Shale, gray and sand. . . . .	28	249			
Silt, gray. . . . .	2	257			
Shale, gray, and sand. . . . .	12	269			
Shale, gray. . . . .	40	309			
Shale, gray, and sand. . . . .	49	358			
Shale, gray. . . . .	3	366			
Sandstone, blue. . . . .	6	372			
Shale, gray, and layers of sandstone. . . . .	21	393			

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C2-48-19ddca.--Continued</b>		<b>C2-68-21cbbb 2.--Continued</b>		<b>C2-68-29cbbd.--Continued</b>	
Shale, gray . . . . .	15 911	Lower conglomerate:		Gravel, quartz, sand,	
Shale, brown, and coal	9 920	Sand, fine . . . . .	20 528	and white clay . . . . .	12 482
Shale, gray . . . . .	102 1,022	Shale, gray . . . . .	19 547	Shale, tough, green . . . . .	13 495
Mudstone . . . . .	2 1,024	Shale, gray; contains		Shale, sandy, soft . . . . .	15 510
Shale, gray . . . . .	46 1,070	fine sand . . . . .	50 597	Shale, dark-gray . . . . .	75 585
Coal . . . . .	1 1,073	Shale, gray . . . . .	24 621	Lower conglomerate:	
Shale, gray . . . . .	46 1,119	Shale, gray; contains		Sand, quartz, fine to	
Mudstone . . . . .	3 1,122	fine sand . . . . .	19 640	coarse, and gravel:	
Shale, gray . . . . .	25 1,147	Shale, gray . . . . .	5 645	contains some white	
Shale, gray, and coal	31 1,178	Mudstone . . . . .	1 646	clay . . . . .	23 608
Shale, gray . . . . .	7 1,185	Shale, gray; contains		Shale, gray . . . . .	33 641
Mudstone . . . . .	3 1,188	mudstone . . . . .	74 720	Sandstone, fine-	
Shale, gray . . . . .	10 1,198	Shale, brown . . . . .	5 725	grained . . . . .	4 685
Shale, gray, and coal	13 1,211	Laramie Formation:		Shale . . . . .	12 657
Mudstone . . . . .	3 1,214	Shale, gray; contains		Sandstone . . . . .	5 662
Shale, gray . . . . .	7 1,221	mudstone . . . . .	98 823	Shale, blackish . . . . .	75 717
Shale, gray, and coal	11 1,232	Coal . . . . .	5 828	Sandstone . . . . .	20 757
Shale, gray . . . . .	22 1,254	Shale, gray; contains		Laramie Formation:	
Shale, gray, and coal	51 1,305	mudstone and coal	358 1,186	Shale, sticky, black . . . . .	31 938
Shale, sandy, gray,		Coal . . . . .	9 1,195	Shale, very sticky,	
and pyrite . . . . .	26 1,331	Sand, fine . . . . .	2 1,197	black . . . . .	152 990
		Coal . . . . .	3 1,200	Shale, dark, crumbly:	
Sand, fine [B sandstone,				10-inch coal seam	
1,331 to 1,401 feet]	70 1,401	Sand, fine [B sandstone,		at 1,085 feet . . . . .	95 1,085
Shale, gray . . . . .	6 1,407	1,200 to 1,283 feet.]	83 1,283	Shale, crumbling, car-	
		Shale, gray . . . . .	10 1,313	bonaceous, black . . . . .	55 1,140
Sand, fine, and gray		A sandstone:		Coal . . . . .	1 1,141
shale [A sandstone,		Shale, gray; contains		Shale, black, crumbling,	
1,407 to 1,561 feet]	19 1,426	fine sand . . . . .	19 1,332	carbonaceous; 10-inch	
Shale, gray . . . . .	54 1,480	Shale, gray . . . . .	20 1,352	coal seam at 1,212	
Sand, fine, and gray		Lime . . . . .	3 1,355	feet . . . . .	71 1,212
shale . . . . .	81 1,561	Sand, fine . . . . .	35 1,390	Shale, crumbling, car-	
Shale, gray . . . . .	37 1,598	Shale, gray . . . . .	56 1,446	bonaceous, black;	
Fox Hills Sandstone:				8-inch coal seam at	
Milliken Sandstone Member:		C2-68-28cbbcb. Alt. 5,503 ft.		1,280 feet . . . . .	68 1,280
Sand, fine, hard . . . . .	32 1,630	Slocum Alluvium:		Shale, crumbling, car-	
		Clay, yellow . . . . .	3 3	bonaceous, black . . . . .	18 1,298
		Gravel . . . . .	8 11	Shale, sandy, hard . . . . .	2 1,300
C2-68-20dcda. Alt. 5,475 ft.		Dawson Formation (upper part):		Shale, black; 8-inch	
Overburden . . . . .	62 62	Clay, sandy, yellow . . . . .	47 58	coal seam at 1,320	
Dawson Formation (upper part):		Shale, blue . . . . .	2 60	feet . . . . .	20 1,320
Clay, blue, and shale	226 288	Clay, yellow . . . . .	19 79	Shale, carbonaceous,	
Sandstone . . . . .	6 294	Sandstone, gray . . . . .	19 98	black . . . . .	20 1,340
Shale, and streaks of		Shale, blue . . . . .	6 104	Coal . . . . .	1 1,341
sandstone . . . . .	14 308	Shale, gray . . . . .	146 250	Shale, sandy, gray . . . . .	31 1,372
Dawson Formation (lower part):		Dawson Formation (lower part):		B sandstone:	
Sand and sandstone . . . . .	16 324	Sand and gray shale		Sandstone, fine-grained	50 1,422
Clay and shale . . . . .	13 337	[Middle conglomerate,		Shale, sandy, gray . . . . .	38 1,460
Sand and sandstone . . . . .	25 362	309 to 455 feet.] . . . . .	149 399	Shale, sticky, gray . . . . .	66 1,526
Clay and shale . . . . .	136 498	Sand . . . . .	6 405	A sandstone:	
Clay, sandy . . . . .	7 505	Shale, gray . . . . .	24 429	Shale, gray, slate-like	
Lower conglomerate:		Lime, sandy . . . . .	4 433	shells; and sand . . . . .	18 1,544
Sand and sandstone . . . . .	27 532	Shale, gray . . . . .	13 446	Sandrock . . . . .	29 1,573
Clay and shale . . . . .	10 542	Sandstone, gray . . . . .	6 452	Shale, sandy, gray . . . . .	23 1,596
Sand and sandstone . . . . .	18 560	Sand, fine . . . . .	3 455	Shale, black; contains	
Clay . . . . .	28 588	Shale, gray . . . . .	50 505	white chalk-like	
Sandstone . . . . .	2 590	Lime, sandy . . . . .	3 508	impregnations . . . . .	10 1,626
Clay . . . . .	20 610	Shale, gray . . . . .	17 525		
Sand and sandstone . . . . .	30 640	Lower conglomerate:		C2-68-31acab. Alt. 5,350 ft.	
Clay . . . . .	3 643	Sand, fine . . . . .	4 520	No sample . . . . .	105 105
Sand and sandstone . . . . .	21 664	Lime, sandy . . . . .	3 532	Dawson Formation (lower part):	
Clay and shale . . . . .	22 686	Sand, medium to fine . . . . .	108 640	Clay, blue-gray, and fine	
Sandstone and sand . . . . .	18 704	Shale, gray . . . . .	23 663	white sand [Middle con-	
Clay and shale . . . . .	76 780	Sand, fine . . . . .	11 674	glomerate, 105 to	
Sandstone . . . . .	5 785	Shale, gray . . . . .	9 683	280 feet.] . . . . .	10 115
Clay . . . . .	7 792	Sand, fine, and gray		Ash, white . . . . .	10 125
		shale . . . . .	87 770	Clay, blue . . . . .	15 140
C2-68-21cbbb2. Alt. 5,284.5 ft.				Clay, blue, and light-	
Fill . . . . .	2 2	C2-68-29cbbd. Alt. 5,541 ft.		gray clay . . . . .	5 145
Dawson Formation (upper part):		Slocum Alluvium:		Clay, blue, white ash,	
Soil . . . . .	3 5	Surface . . . . .	10 10	and some white fine	
Clay, yellow . . . . .	3 8	Dawson Formation (upper part):		sand . . . . .	4 150
Sandstone yellow . . . . .	6 14	Shale, yellow . . . . .	60 70	Clay, dark-gray . . . . .	15 165
Clay, gray . . . . .	3 17	Shale, blue . . . . .	57 127	Gumbo, blue-gray . . . . .	15 180
Clay, yellow . . . . .	12 29	Shale, hard, black . . . . .	5 132	Gumbo, blue-gray, and	
Clay, gray . . . . .	17 46	Shale, green . . . . .	4 136	some white fine sand	10 190
Sandstone, gray . . . . .	4 50	Shale, hard, black,		Gumbo, blue-gray . . . . .	5 195
Shale, gray . . . . .	15 65	and sand . . . . .	6 142	Sand, medium-gray, and	
Shale and gray sand-		Shale, green, and		gumbo . . . . .	5 200
stone . . . . .	9 74	some sand . . . . .	45 187	Clay, ashy, light-gray	15 215
Sandstone, gray . . . . .	8 82	Sandrock, clayey, gray	6 193	Clay, light-gray and	
Shale, gray . . . . .	4 86	Shale, gritty, green . . . . .	54 247	tan, and sandy shale	5 220
Sandstone, gray . . . . .	4 90	Shale, sandy, gray . . . . .	15 262	Shale, ashy, light-gray,	
Shale, gray . . . . .	27 117	Shale, green (caving)	47 309	and clay . . . . .	5 225
Sand . . . . .	7 124	Shale, sandy, gray and		Sand, ashy, fine, white	5 230
Shale, gray . . . . .	12 136	green . . . . .	25 334	Sand, ashy, very fine,	
Shale, blue . . . . .	5 141	Dawson Formation (lower part):		gray . . . . .	5 235
Shale, gray . . . . .	17 158	Sandrock [Middle con-		Sand, medium to coarse,	
Shale, sandy, gray . . . . .	18 176	glomerate, 334 to		gray . . . . .	5 240
Shale, gray . . . . .	202 378	482 feet.] . . . . .	4 338	Sand, fine, white, and	
Shale, sandy, gray . . . . .	6 384	Shale, dark-gray . . . . .	6 344	some gray sandy clay	5 245
Dawson Formation (lower part):		Shale, blue-gray . . . . .	12 356	Clay, sandy, gray, and	
Sand [Middle conglomerate,		Sandstone and gray-		conglomerate . . . . .	5 250
384 to 425 feet.] . . . . .	6 390	white shale . . . . .	16 372	Conglomerate and gray	
Lime . . . . .	1 391	Shale, sticky, black		clayey sand . . . . .	5 255
Sandstone, gray . . . . .	4 395	(caving) . . . . .	20 392	Sand, fine, white; con-	
Shale, gray . . . . .	20 415	Shale, jointy, black . . . . .	19 411	tains some dark-gray	
Sand, fine . . . . .	10 425	Sandstone . . . . .	10 421	clay . . . . .	5 260
Shale, gray . . . . .	5 430	Shale, crumbling,		Sand, medium, angular,	
Shale, sandy, brown		greenish-gray and		white . . . . .	5 265
Shale, gray; contains		black . . . . .	49 470	Sand, shaly, gray; con-	
fine sand . . . . .	19 455			tains shale and some	
Shale, gray . . . . .	53 508			conglomerate . . . . .	15 280

Table 1.--Logs of wells and test holes--Continued

Thickness	Depth	Thickness	Depth	Thickness	Depth			
<b>C2-68-11caab1.--Continued</b>		<b>C2-68-11caab2.--Continued</b>		<b>C2-68-15ccccc1.--Continued</b>				
Clay, gray.	15	295	Shale, blue.	5	265	Shale, gray.	18	561
Clay, gray, and some			Shale, gray.	12	297	Sand, fine, and gray		
gray sandy clay.	5	300	Shale, sandy, gray.	15	312	Shale.	42	503
Clay, gray; contains			Stone, gray.	20	332	Shale, gray.	13	516
gray sand and con-			Shale, gray.	19	351			
glomerate.	5	305	Lower conglomerate:			<b>C2-68-15daad.</b> Alt. 5,120.7 ft.		
Clay, gray.	15	320	Sand.	5	356	Piney Creek Alluvium:		
Clay, gray, and gray			Lime, sandy.	2	358	Soil.	5	
sandy shale.	10	330	Sandstone, gray.	4	362	Broadway and Louviers Alluvium,		
Clay, gray and tan,			Shale, gray.	4	366	undifferentiated:		
and conglomerate.	10	340	Sand, fine.	9	374	Sand and boulders.	25	30
Clay, gray.	10	370	Lime, sandy.	2	376	Dawson Formation:		
Shale, gray.	10	380	Sand, medium to fine.	43	419	Shale.	5	35
Lower conglomerate:			Sand, medium to fine,					
Sand, fine, gray, and			and gray shale.	15	434	<b>C2-68-16bdas.</b> Alt. 5,100.1 ft.		
gray shale.	5	385	Shale, gray.	21	455	Piney Creek Alluvium:		
Sand, medium, quartz,			Shale, gray, and fine			Clay.	5	
well-rounded, white	15	400	sand.	12	467	Louviers Alluvium:		
Sand, as above; contains			Shale, gray.	41	506	Gravel.	2	18
some green-gray shale	10	410	Sand, fine.	11	519			
Shale, green-gray, and			Shale, gray.	11	530	<b>C2-69-1ccpcc.</b> Alt. 5,125 ft.		
medium white sand.	5	415	Sand, fine.	12	542	Dawson Formation (lower part):		
Sand, fine, white.	5	420	Sand, fine, and gray			Clay and rocks.	18	18
Sand, medium, white,			shale.	9	551	Clay, blue.	15	13
and conglomerate.	5	425	Shale, gray.	60	611	Clay, hard, brown.	9	42
Sand, medium and coarse,			Shale, brown.	2	613	Lower conglomerate:		
white.	10	435	Shale, gray.	102	715	Sandstone.	10	52
Sand, quartz, coarse,			Sand, fine.	3	718	Shale.	29	91
white.	10	445	Shale, gray.	27	745	Rock.	1	82
Shale, gray; contains			Shale, brown.	11	756	Sand.	16	98
white sand and			Shale, gray.	24	780	Shale.	9	107
conglomerate.	5	450	Sand, fine.	3	783	Coal.	3	110
Sand, medium.	5	455	Laramie Formation:			Shale.	45	155
Shale, sandy, gray,			Shale, gray.	57	840	Sand.	10	165
and white fine sand	5	460	Shale, brown.	10	850	Shale.	5	170
Sand, fine, white, and			Shale, gray.	16	866	Sandstone.	3	173
gray sandy shale.	5	465	Shale, brown.	6	872	Laramie Formation:		
Shale, sandy, gray.	15	480	Shale, gray.	134	1,006	Shale.	126	299
Sand, fine, white.	10	490	Shale, gray, and coal	13	1,019	Rock.	2	301
Clay, gray.	10	500	Shale, gray.	66	1,085	Shale.	13	314
Sand, fine to medium,			Coal.	4	1,089	Rock.	1	315
white.	5	505	Shale, gray.	7	1,096	Shale, gray.	31	346
Sand, shaly, fine,			Coal.	5	1,101	Rock.	2	348
gray.	5	510	Shale, gray.	8	1,109	Shale, gray.	7	355
Shale, gray, and white			Coal.	3	1,112	Rock.	1	356
ash.	10	520	Sand, fine, and layers			Shale, gray.	54	410
Sand, shaly, fine.			of gray shale.	31	1,143	Rock.	1	411
gray.	5	525	Shale, gray.	17	1,160	Shale, blue.	51	462
Sand, medium, gray.	5	530	Coal.	3	1,163	Coal.	2	464
Shale, sandy, gray.	5	535	Shale, gray.	7	1,170	Shale, blue.	118	582
Clay, gray, and medium			Coal and layers of			Sandstone, rocky.	2	584
gray sand.	5	540	gray shale.	20	1,190	Shale, sandy.	5	589
Clay, gray.	25	565	Shale, gray.	20	1,210	Shale, brown.	11	600
Sand, clayey, gray.	15	580	S sandstone:			Shale, hard, gray.	12	612
Clay, sandy, gray.	20	600	Sand.	88	1,298	Sand.	5	617
Sand, clayey, gray.	5	605	A sandstone:			Shale, gray.	17	634
Clay, sandy, gray.	10	615	Shale, gray, and fine			Coal.	3	637
Clay, gray.	15	630	sand.	61	1,359	Shale, gray.	30	667
Shale, sandy, gray.	15	645	Sand, fine.	9	1,368	Sandstone.	3	670
Sand, shaly, gray.	5	650	Lime, sandy.	1	1,369	Shale, blue.	26	696
Clay, gray.	5	655	Sand, fine.	11	1,380	Shale, hard, black.	21	717
Clay, gray, and con-			Lime, sandy.	4	1,384	Rock.	1	718
glomerate.	5	660	Shale, gray.	73	1,457	Shale, hard, and coal.	17	735
Clay, gray; contains			Sand, fine.	24	1,481	Rock.	1	736
rare specks of liq-			Shale, gray.	6	1,487	Shale, gray.	20	756
nite.	10	670	Fox Hills Sandstone:			Sandstone, soft.	4	760
Clay, gray, and some			Milliken Sandstone Member:			Shale, gray.	12	772
gray sand.	5	675	Sand, fine.	16	1,523	Coal.	4	776
Clay, gray, and some			Transition zone:			Shale, gray.	9	781
white sand.	5	680	Shale, gray, and fine			Coal.	9	790
Clay, gray, and some			sand.	10	1,533	Sand (B sandstone, 790		
conglomerate.	5	685	Shale, gray.	13	1,546	to 852 feet.)	62	852
Sand, clayey, gray.	5	690				Shale.	2	854
Conglomerate, medium			<b>C2-68-15ccccc2.</b> Alt. 5,140 ft.					
sand, and clay.	5	695	Piney Creek Alluvium:			A sandstone of the Laramie		
Sand, medium, white,			Soil.	2	2	Formation and Milliken		
and some conglom-			Clay, yellow.	5	7	Sandstone Member of the		
erate.	5	700	Broadway and Louviers Alluvium,			Fox Hills Sandstone.		
Clay, gray.	3	703	undifferentiated:			undifferentiated:		
			Sand and gravel.	32	39	Sand.	28	882
<b>C2-68-11caab2.</b> Alt. 5,333 ft.			Dawson Formation (upper part):			Shale, sandy.	8	890
Younger loess:			Shale, blue.	6	45	Sand.	107	997
Soil.	2	2	Shale, gray.	163	208	Shale.	10	1,007
Dawson Formation (upper part):			Dawson Formation (lower part):			<b>C2-69-2bbab.</b> Alt. 5,435 ft.		
Clay, brown.	4	6	Sand (Middle conglomer-			Dawson Formation (lower part):		
Sandstone, brown.	13	19	ate, 208 to 297			Soil.	3	
Clay, yellow.	25	44	feet.)	13	221	Clay, sandy, yellow.	15	18
Shale, gray.	61	105	Shale, sandy, gray.	11	232	Clay, sandy, gray.	11	29
Dawson Formation (lower part):			Sandstone, gray.	21	253	Clay, sandy, yellow.	17	46
Sand (Middle conglomer-			Shale, gray.	7	260	Shale, gray.	65	111
ate, 105 to 256 feet.)	15	120	Sandstone, blue.	18	278	Sandstone, gray.	3	114
Sandstone, gray.	7	127	Shale, blue.	8	286	Shale, gray.	205	319
Shale, gray.	17	144	Sandstone, blue.	11	297	Sandstone, gray.	2	321
Sandstone, soft, gray	9	153	Shale, gray.	99	396	Laramie Formation:		
Shale, gray.	12	165	Lower conglomerate:			Shale, gray.	171	492
Shale, sandy, gray.	9	174	Sand.	6	402	Lime, sandy, gray.	2	494
Shale, gray.	16	210	Shale, gray.	9	411	Sandstone, gray.	22	516
Shale, sandy, gray.	24	214	Sand, fine.	27	438	Shale, gray.	103	619
Sand.	6	240	Shale, gray.	24	462	Coal.	5	624
Shale, gray.	10	250	Sand, fine, and gray			Shale, gray.	24	648
Sand.	6	256	shale.	43	505	Coal.	5	653
Shale, brown.		259	Sand, fine.	38	543	Shale, gray, and coal.	8	661

Table 1.--Loss of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C2-69-2bbab. ---Continued</b>		<b>C2-69-18ccgg. ---Continued</b>		<b>C2-69-25daaa. ---Continued</b>	
Shale, gray	18 479	Shale, gray	14 37	Shale, gray	52 154
Coal blossom	2 481	Shale, sandy, gray	21 118	Sand, fine, and gray	12 176
Shale, gray	2 483	Shale, gray	47 165	Shale	33 209
Sand, fine, nice	12 495	Sandstone, hard, white	4 169	Shale, gray	1 211
Sandstone, gray	1 498	Shale, sandy, gray	11 180	Sandstone, gray	10 221
Shale, gray	3 506	Shale, gray	15 215	Shale, gray	20 241
Sand, fine	5 712	Shale, sandy, gray	5 220	Sandstone, gray	1 244
Shale, gray	4 716	Sand, fine, gray	4 224	Shale, gray	40 284
Coal	5 721	Laramie Formation:		Sandstone, gray	15 299
Shale, brown	1 722	Shale, gray	10 234	Shale, gray	13 312
Shale, gray	4 726	Coal and gray shale	8 242	Shale, sandy	1 314
Shale, sandy, gray	13 739	Shale, sandy, gray	32 274	Lower conglomerate:	
Coal	5 744	Sandstone, gray	2 276	Sand	73 387
Shale, gray	13 757	Shale, sandy, gray	8 284	Shale, gray	30 417
Coal	7 764	Shale, gray	6 290	Sand, fine, and gray	130 547
Shale, gray	3 767	Shale, sandy, gray	28 318	Shale, gray	49 596
Coal	2 769	Sandstone, hard, gray	1 321		
3 sandstone:		Shale, gray	15 326		
Sand, fine, white	71 840	Coal and gray shale	14 350		
4 sandstone:		Shale, gray	11 361		
Sand, fine, and gray		Shale, sandy, gray	9 369		
Shale	79 919	Sandstone, gray, and			
Lime, sandy	4 923	layers of hard gray			
Sand, fine	27 950	shale	21 390		
Shale, gray	42 992	Coal and gray shale	3 398		
Coal	4 996	Shale, gray	20 418		
Shale, gray	21 1,017	Shale, sandy, gray	19 437		
Sandstone, gray	2 1,019	Coal and gray shale	13 450		
Fox Hills Sandstone:		Shale, sandy, gray	20 470		
Milliken Sandstone Member:		Shale, gray, and fine			
Lime	2 1,021	sand	20 490		
Shale, sandy, gray	13 1,054	Coal and gray shale	12 502		
Shale, gray	86 1,140	Mudstone	2 504		
		Shale, gray, and coal	11 515		
		Shale, gray	16 531		
		Sand, fine, and gray			
		shale	9 540		
		Shale, gray	12 552		
		Coal and gray shale	23 575		
		Shale, sandy, gray	8 583		
		Mudstone	2 585		
		Shale, gray, and fine			
		sand	8 593		
		Shale, gray, and coal	67 660		
		Shale, sandy, gray	9 669		
		Shale, gray	5 674		
		Coal and gray shale	7 681		
		Lime, sandy	4 685		
		Shale, gray	2 687		
		Sandstone, hard [B			
		sandstone, 687 to			
		761 feet.	4 691		
		Sand, fine, and gray			
		shale	68 759		
		Lime, sandy	2 761		
		Shale, gray, and coal	9 770		
		Lime, sandy	2 772		
		Coal, gray shale, and			
		layers of fine sand	28 800		
		Lime	4 804		
		Shale, gray, and coal	17 821		
		Laramie Formation and Fox Hills			
		Sandstone, undifferentiated:			
		A sandstone of the Laramie			
		Formation and Milliken			
		Sandstone Member of the			
		Fox Hills Sandstone			
		undifferentiated:			
		Sand, fine, and gray			
		shale	164 885		
		Shale, gray	10 895		
		Sand, fine, and gray			
		shale	11 926		
		Shale, gray	4 930		
		<b>C2-69-19acba. Alt. 5,552 ft.</b>			
		Piney Creek Alluvium:			
		Clay	10 90		
		Sand and clay	9 18		
		Louviere Alluvium:			
		Sand	12 30		
		Dawson Formation (lower part):			
		Shale, blue	7 32		
		Gravel, coarse, black	9 41		
		Shale	1 42		



Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C2-69-19bbaa. Alt. 5,588 ft.</b>		<b>C2-69-19dddd.--Continued</b>		<b>C2-70-21abbb.--Continued</b>	
Colluvium:		Shale, sandy, gray.	12 142	Shale.	5 325
Topsoil, and clay.	5 5	Sandstone, gray.	9 151	Sand.	55 380
Dawson Formation (upper and lower parts, undifferentiated):		Shale, gray.	5 157	Shale.	187
Sandstone, cemented.	18 23	Sandstone, gray.	24 181	A sandstone:	
Clay, gray.	8 31	Sand, coarse, and sandstone.	14 195	Sand.	25 412
Shale, sandy, and gray-brown rock.	19 50	Shale, gray, and sandstone.	14 209	Shale.	18 430
Clay, brownish-gray; contains a little coal.	55 105	Shale, gray.	17 226	<b>C2-70-25cddb. Alt. 5,680 ft.</b>	
Shale, blue, and clay.	35 140	Shale, sandy, gray.	16 242	Rocky Flats Alluvium:	
Rock, very hard, brown.	5 145	Sandstone, gray.	4 246	Clay, brown, and rock.	28 28
Dawson Formation (lower part):		Sand, shaly, gray.	10 256	Dawson Formation (lower part):	
Lower conglomerate:		Shale, gray.	14 270	Clay, brown.	10 38
Sandstone, fine-grained.	19 164	Sandstone, gray.	2 275	Shale, gray.	65 103
Clay, blue-gray, and shale.	33 197	Lime, sandy.	3 278	Shale, gray; contains streaks of sandstone.	2 105
Sandstone.	4 201	Shale, sandy, gray.	3 278	Shale, gray.	9 114
Shale, gray.	11 212	Lower conglomerate:		Sandstone.	1 117
Shale, fine, sandy.	8 220	Sand, fine, white.	7 285	Shale, gray.	14 131
Sandstone, fine-grained, hard.	15 235	Sand, coarse, and gray.	18 303	Shale, sandy, gray.	5 137
Shale, gray, and clay.	24 259	Shale.	11 314	Laramie Formation:	
Sandstone, fine-grained.	4 263	Lime, sandy.	2 316	Shale, gray.	351 488
Clay, blue, and shale.	4 267	Sandstone, gray.	8 324	Coal and gray shale.	12 510
Shale, gray, and clay.	27 294	Sand, coarse, and gray.	9 333	Shale, gray.	28 538
Sandstone, fine-grained.	2 296	Shale, gray.	8 341	Coal and gray shale.	116 554
Laramie Formation:		Sandstone, gray.	2 343	Shale, gray; contains sandstone stringers.	16 670
Shale, brown; contains a little coal.	3 299	Sand, fine, and gray.	19 382	Coal and bentonitic clay.	15 685
Shale, gray, and clay.	13 312	Sand, coarse, and gray.	21 403	Clay, gray; contains sandstone lenses.	40 725
Sand, very fine, and streaks of shale.	4 316	Shale, fine, and gray.	12 415	Coal and gray clay.	25 750
Sandrock, hard.	1 317	Shale, sandy, gray.	6 421	Sandstone lenses, bentonitic clay, and coal [B sandstone, 750 to 842 feet.].	
Shale, gray.	20 337	Sand, fine, and gray.	7 428		50 800
Shale, brown.	2 339	Shale.	11 439	Shale, gray, and sandstone.	25 825
Clay, blue-gray, and shale.	19 358	Lime, sandy.	1 440	Shale, gray, sandstone lenses, and coal.	17 842
Clay, brown-gray, and some coal.	4 362	Sand, coarse.	7 447	Coal and gray shale.	40 882
Shale, gray.	13 375	Sand, fine, and sandy.	17 464	Coal, gray shale, and white sandy clay.	22 904
<b>C2-69-19dbcc. Alt. 5,650 ft.</b>		Shale, sandy, gray.	20 500	A sandstone:	
Colluvium:		<b>C2-69-19dbbb. Alt. 5,475 ft.</b>		Coal, white sandy clay, and sandstone.	20 924
Topsoil.	2 2	Slocum Alluvium:		Shale, gray.	21 945
Dawson Formation (lower part):		Clay, blue.	30 30	Coal, white sandy clay, and streaks of sandstone.	10 975
Clay.	45 47	Dawson Formation (upper part):		Clay, white, sandy, and some coal.	79 1,054
Shale, blue.	95 142	Shale, blue; contains streaks of sandstone.	20 50	Fox Hills Sandstone:	
Lower conglomerate:		Shale, blue.	19 69	Milliken Sandstone Member:	
Sand and blue shale.	8 150	Dawson Formation (lower part):		Shale, gray.	61 1,115
Shale, blue.	15 185	Sandstone [Middle conglomerate, 69 to 171 feet.].	2 71	Clay, dark-gray, and shale.	25 1,140
Sand.	10 195	Shale, blue; brown streaks.	91 162	Clay, dark-gray, and shale; contains streaks of coal and fine sand.	35 1,175
Shale, blue.	1 196	Sand, coarse.	9 171	Clay, dark-gray, and shale.	25 1,200
<b>C2-69-19cbdd. Alt. 5,566.7 ft.</b>		Shale, blue; contains streaks of sandstone.	149 320	Clay, dark-gray, and shale; contains thin streaks of coal and fine sand.	52 1,252
Slocum Alluvium:		Lower conglomerate:		<b>C2-70-26ccda. Alt. 5,715 ft.</b>	
Topsoil and clay.	14 14	Sand, coarse; contains streaks of shale.	35 355	Colluvium and Dawson Formation, undifferentiated:	
Sand and small rock.	16 30	Shale.	20 375	Boulders, clay, and shale.	100 100
Clay.	2 32	Shale; contains thin layers of sand.	137 512	Dawson and Laramie Formations undifferentiated:	
<b>C2-69-19adcc. Alt. 5,545 ft.</b>		Sand, fine.	7 513	Shale.	585 685
Colluvium:		Shale.	7 525	Laramie Formation:	
Clay, wet, brown.	15 15	Sand, fine.	6 531	Coal and shale.	30 715
Dawson Formation (upper part):		Shale; contains sandy streaks.	7 538	<b>C2-70-26ddad. Alt. 5,633.2 ft.</b>	
Clay, sandy.	11 26	Shale.	7 545	Piney Creek Alluvium:	
Dawson Formation (lower part):		<b>C2-70-21abbb. Alt. 6,183 ft.</b>		Topsoil and silt.	9 9
Middle conglomerate:		Rocky Flats Alluvium:		Broadway Alluvium:	
Sand and gravel.	6 32	Gravel, boulders, and layers of clay.	30 30	Gravel, coarse.	5 14
Sandstone, brown.	44 76	Laramie Formation:		Dawson Formation (lower part):	
Sandstone and interbedded shale.	49 125	Shale, weathered.	10 60	Shale, blue.	2 16
<b>C2-69-19bacc. Alt. 5,498 ft.</b>		Coal and shale.	10 70	Gravel and rock.	13 29
Piney Creek Alluvium:		Shale.	30 100	Shale, gray.	6 35
Clay.	14 14	Sandstone; contains layers of clay.	30 130	<b>C2-70-27dbdc. Alt. 5,764.7 ft.</b>	
Louviere Alluvium:		Sandstone.	5 135	No sample.	
Gravel and boulders.	2 16	Shale, blue.	13 148		66 66
Dawson Formation:		Sandstone.	9 157	Dawson Formation (lower part):	
Shale.	7 23	Shale and coal.	4 161	Lower conglomerate:	
<b>C2-69-19dddd. Alt. 5,546 ft.</b>		Sandstone.	3 164	Sand.	12 78
Fill:		Shale.	24 188	Shale.	29 107
Piney Creek Alluvium:		Shale.	2 190	Sand.	19 126
Topsoil.	2 3	Sandstone.	10 200	Sand and gravel.	3 129
Clay, sandy, brown.	3 6	Coal.	7 207	Sand.	10 139
Dawson Formation (upper part):		Shale.	10 217	Shale.	27 166
Clay, gray.	12 18	Sandstone.	11 250	Sand.	44 210
Clay, sandy, brown.	20 38	Shale.	4 254	Shale.	13 223
Dawson Formation (lower part):		Coal.	9 263	Sand.	16 239
Sandstone, brown [Middle conglomerate, 38 to 195 feet.].	4 42	Sandstone [B sandstone, 263 to 380 feet.].		Laramie Formation:	
Clay, gray.	3 45		26 289	Shale.	57.5 296.5
Clay, sandy, brown.	4 49	Coal.	1 290		
Sandstone, hard, brown.	1 50	Shale.	14 304		
Clay, sandy, brown.	3 53	Sandstone.	16 320		
Shale, gray.	21 74				
Sand, medium to fine.	5 79				
Shale, gray.	11 90				
Shale, sandy, gray.	8 98				
Shale, gray.	12 130				

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C2-70-27dbdc. --Continued</b>					
Coal . . . . .	1.5	298			
Shale . . . . .	12	330			
Sandstone . . . . .	25	355			
Shale . . . . .	13.5	388.5			
Coal . . . . .	1.5	390			
Shale . . . . .	22	412			
Sandstone . . . . .	5	417			
Iron rock . . . . .	1	418			
Sandstone . . . . .	8	426			
Shale . . . . .	49	475			
Sandstone . . . . .	17	492			
Shale . . . . .	10	502			
Sandstone . . . . .	28	530			
Shale . . . . .	2.5	532.5			
Coal . . . . .	1.5	534			
Shale . . . . .	23	557			
Coal, bone . . . . .	2	559			
Sandstone . . . . .	21	580			
Shale . . . . .	11.5	591.5			
Coal . . . . .	2.5	594			
Shale . . . . .	15.3	609.3			
Coal . . . . .	.7	610			
Sandstone . . . . .	24	634			
Coal . . . . .	5.5	639.5			
Shale . . . . .	24.5	664			
Coal . . . . .	3.5	667.5			
Shale . . . . .	10.5	678			
Sandstone (8 sandstone, 678 to 732 feet.) . . . . .	54	732			
Shale . . . . .	1.3	733.3			
Coal . . . . .	5.2	738.5			
Shale . . . . .	20.6	759.1			
Coal . . . . .	2.1	761.2			
Shale . . . . .	11.8	773			
Coal . . . . .	1	774			
Shale . . . . .	9	783			
Coal . . . . .	8.4	791.4			
<b>C3-65-1dddd. Alt. 5,396 ft.</b>					
Eolian sand:					
Topsoil and sandy clay . . . . .	11	11			
Younger loess:					
Clay, plastic . . . . .	16	27			
Dawson Formation:					
Shale, weathered, medium hard . . . . .	4	31			
Shale, very hard, buff . . . . .	6	37			
<b>C3-65-9bbbbb. Alt. 5,408 ft.</b>					
Eolian sand:					
Topsoil and tan sandy clay . . . . .	4	4			
Younger loess:					
Clay, plastic, buff . . . . .	7	11			
Dawson Formation:					
Shale, weathered, tough . . . . .	3	14			
Shale, hard, buff . . . . .	8	22			
<b>C3-65-14dbaa2. Alt. 5,418 ft.</b>					
Post-Piney Creek alluvium and Broadway Alluvium, undifferentiated: Sand . . . . .	24	24			
Louviers Alluvium:					
Clay . . . . .	4	28			
Gravel . . . . .	2	30			
Clay . . . . .	6	36			
Gravel . . . . .	14	50			
Dawson Formation:					
Clay . . . . .	5	55			
Shale . . . . .	5	60			
<b>C3-65-16dada. Alt. 5,525.9 ft.</b>					
Eolian sand:					
Topsoil . . . . .	2	2			
Younger loess:					
Clay, brown . . . . .	14	16			
Dawson Formation (upper part):					
Sand, coarse (water- bearing) . . . . .	16	32			
Shale, gray to blue; contains interbedded coal seams . . . . .	133	365			
Upper conglomerates:					
Sand interbedded with stringers of shale . . . . .	35	400			
Shale, gray . . . . .	30	430			
Sand layers interbedded with stringers of shale . . . . .	40	470			
Shale, gray . . . . .	10	500			
Sand . . . . .	10	530			
Shale, gray . . . . .	45	575			
Sand . . . . .	25	600			
Shale, gray . . . . .	20	620			
Sand interbedded with stringers of shale . . . . .	50	670			
Shale . . . . .	20	690			
<b>C3-66-1ddddd. Alt. 5,387 ft.</b>					
Topsoil and road-bed . . . . .	2	2			
Dawson Formation (upper part):					
Shale, weathered, lim- onitic stains, tan . . . . .	6.5	8.5			
Shale, sandy, hard, platy-structure, tan- orange . . . . .	3.5	12			
<b>C3-66-2cagc. Alt. 5,425 ft.</b>					
Eolian sand:					
Sand, light-brown . . . . .	40	40			
Dawson Formation (upper part):					
Shale, gray, and gravel . . . . .	55	95			
Coal, black, and gray shale . . . . .	5	100			
Shale, light-gray . . . . .	250	350			
Shale, gray . . . . .	40	390			
Sand, light-gray . . . . .	20	410			
Shale, gray, and gray sand . . . . .	70	480			
Shale, gray . . . . .	30	510			
Sand, shaly, gray . . . . .	10	520			
Shale, gray . . . . .	50	570			
Shale, gray, and gray sand . . . . .	60	630			
Shale, sandy, gray . . . . .	85	715			
Shale, light- to medium-gray . . . . .	95	810			
Dawson Formation (lower part):					
Sand, gray, and gray shale [Middle con- glomerates, 810 to 880 feet.] . . . . .	10	20			
Shale, sandy, gray . . . . .	10	830			
Shale, gray . . . . .	10	840			
Sand, gray, and gray shale . . . . .	30	870			
Shale, sandy, gray . . . . .	10	880			
Shale, gray . . . . .	124	1,004			
Lower conglomerates:					
Sand, light-gray . . . . .	30	1,034			
Shale, gray . . . . .	66	1,100			
Shale, sandy, gray . . . . .	70	1,170			
Shale, gray . . . . .	20	1,190			
Shale, gray, and gray sand . . . . .	10	1,200			
Laramie Formation:					
Shale, light- and medium-gray . . . . .	10	1,210			
Shale, light-gray and gray . . . . .	110	1,320			
Shale, light- and medium-gray . . . . .	170	1,490			
Shale, gray and light- gray . . . . .	110	1,600			
8 sandstones:					
Sand and sandstone; contains a few beds of light-gray sandy shale . . . . .	60	1,660			
A sandstones:					
Shale, sandy, light- and medium-gray . . . . .	40	1,700			
Shale, sandy, gray . . . . .	55	1,755			
Shale, sandy, gray, and gray sand . . . . .	10	1,765			
Shale, gray . . . . .	10	1,775			
Shale, gray, and car- bonaceous shale . . . . .	20	1,795			
Fox Hills Sandstone:					
Milliken Sandstone Member:					
Shale, sandy, gray . . . . .	10	1,805			
Shale, gray . . . . .	30	1,835			
Shale, gray and light- gray . . . . .	10	1,845			
Shale, gray . . . . .	150	1,995			
<b>C3-66-4bcb. Alt. 5,305.0 ft.</b>					
Eolian sand:					
Clay . . . . .	4	4			
Sand . . . . .	2	6			
Clay . . . . .	8	14			
Clay, sandy . . . . .	10	24			
Broadway Alluvium:					
Gravel . . . . .	19.5	43.5			
<b>C3-66-4cdad. Alt. 5,330 ft.</b>					
Eolian sand:					
Clay . . . . .	2	2			
Sand, fine . . . . .	6	8			
Clay . . . . .	11	19			
Broadway Alluvium:					
Gravel . . . . .	32	51			
Dawson Formation (upper part):					
Clay . . . . .	1	52			
Coal . . . . .	1	53			
<b>C3-66-5acac. Alt. 5,297.0 ft.</b>					
Eolian sand:					
Topsoil . . . . .	.6	.6			
Silt . . . . .	4.1	4.7			
Dawson Formation (upper part):					
Silt, clayey . . . . .	1.7	6.4			
Siltstone, weathered . . . . .	5.5	11.9			
Sand, silty, fine, friable, salt and pepper texture; con- tains iron manganese concretions to a maximum diameter of 1 inch . . . . .	16.1	28			
Aragonite, purplish . . . . .	.2	28.2			
Claystone, weathered . . . . .	3.4	31.6			
Shale, weathered, sub- firm to very fissile, purplish . . . . .	4.4	36			
<b>C3-66-6adad. Alt. 5,259 ft.</b>					
Piney Creek Alluvium:					
Topsoil, mucky, black . . . . .	8	8			
Broadway Alluvium:					
Sand . . . . .	10	18			
Dawson Formation (upper part):					
Clay . . . . .	72	90			
Gravel and clay . . . . .	10	100			
Sand . . . . .	24	124			
Sand and gravel (water) 16 . . . . .	16	140			
<b>C3-66-6babb. Alt. 5,247.5 ft.</b>					
Eolian sand:					
Topsoil . . . . .	.5	.5			
Silt, sandy . . . . .	1.8	2.3			
Sand, fine, silty . . . . .	4.1	6.4			
Silt, clayey . . . . .	1.1	7.5			
Sand, fine, silty, clayey . . . . .	1.2	8.7			
Silt, clayey . . . . .	6.7	15.4			
Sand, fine, loose . . . . .	5.8	21.2			
Sand, fine, silty, clayey . . . . .	3.1	24.3			
Dawson Formation (upper part):					
Claystone, silty, weathered . . . . .	3.1	27.4			
Siltstone, weathered . . . . .	.6	28			
Claystone, weathered . . . . .	1.5	29.5			
Siltstone, friable . . . . .	.5	30			
<b>C3-66-7dbcb. Alt. 5,296.7 ft.</b>					
Eolian sand:					
Topsoil . . . . .	.8	.8			
Silt, sandy . . . . .	2.4	3.2			
Sand, fine, silty, loose, friable . . . . .	7.4	10.6			
Silt, clayey . . . . .	5.8	16.4			
Sand, fine, silty, loose, soft . . . . .	4.9	21.3			
Clay, silty . . . . .	2.6	23.9			
Dawson Formation (upper part):					
Siltstone, weathered, friable . . . . .	2.2	6.1			
Shale, weathered . . . . .	2.7	28.8			
Siltstone, weathered . . . . .	1.2	30			
<b>C3-66-8bbad. Alt. 5,284.1 ft.</b>					
Eolian sand:					
Topsoil . . . . .	3	9			
Silt, sandy . . . . .	4.4	5.3			
Sand, fine, silty . . . . .	6.2	11.5			
Sand, fine . . . . .	4.3	15.8			
Sand, medium . . . . .	6.9	22.7			
Sand, fine, silty, loose, friable . . . . .	1.7	24.4			
Dawson Formation (upper part):					
Shale, weathered; contains carbonaceous flecks and stains . . . . .	5.6	30			
<b>C3-66-9bbcc. Alt. 5,304.3 ft.</b>					
Eolian sand:					
Sand . . . . .	3	3			
Clay . . . . .	6	9			
Broadway Alluvium:					
Sand and gravel . . . . .	20	29			
Dawson Formation (upper part):					
Sandstone . . . . .	2	31			
Shale . . . . .	1	32			
<b>C3-66-10bbab. Alt. 5,350 ft.</b>					
Eolian sand:					
Topsoil . . . . .	5	5			
Sand . . . . .	17	22			
Clay . . . . .	21	43			
Clay, sandy . . . . .	10	53			
Dawson Formation (upper part):					
Shale . . . . .	41	94			
Coal . . . . .	3	97			
Shale . . . . .	81	178			
Coal . . . . .	6	184			
Shale . . . . .	63	247			

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>CJ-66-10bbag.---Continued</b>		<b>CJ-66-10dadc.---Continued</b>		<b>CJ-66-12bbca.---Continued</b>	
Upper conglomerate:		Shale, sandy.	12 230	Coal	1 110
Sand, gravel, and rock	3 250	Shale, hard.	18 248	Shale, gray.	9 119
Shale	10 280	Shale, sandy, soft,		Shale, blue.	38 157
Sand, gray.	25 305	white	6 254	Shale, sandy, gray	5 162
Shale	15 320	Coal.	4 258	Shale, gray.	7 169
<b>CJ-66-10bbdd. Alt. 5,340 ft.</b>		Shale, hard, blue	14 272	Coal blossom	1 170
Eolian sand:		Rock.	1 273	Shale, blue.	10 180
Clay.	10 10	Shale, sandy.	11 284	Coal blossom	1 181
Clay, sandy	5 15	Coal.	2 286	Shale, blue.	4 185
Sand.	7 22	Shale, blue	14 300	Coal blossom	3 188
Clay.	8 30	Shale, soft, gray	29 329	Coal and layers of	
Sand, fair.	10 40	Shale, hard	36 365	gray shale.	9 197
Sand, fine.	4 44	Upper conglomerate:		Sandstone, gray.	15 212
Sand, fair.	6 50	Sand, dirty	25 390	Shale, sandy, gray	6 218
Dawson Formation (upper part):		Shale	20 410	Sandstone, hard, gray.	2 220
Sand and layers of		<b>CJ-66-11abca. Alt. 5,385 ft.</b>		Shale, gray.	6 226
clay.	4 54	Fill.	6 6	Sandstone, hard, gray.	2 228
Clay.	1 55	Piney Creek Alluvium:		Shale, gray.	15 243
Shale	1 56	Clay, sandy	29 35	Shale, sandy, gray	11 254
<b>CJ-66-16gacc. Alt. 5,355 ft.</b>		Broadway Alluvium:		Sand, fine, gray, and	
Eolian sand:		Sand.	10 45	layers of sandstone.	13 267
Sand.	8 8	Dawson Formation (upper part):		Sandstone, gray.	2 269
Clay.	8 16	Clay, yellow.	5 50	Coal	4 273
Clay, sandy	12 28	Clay, blue.	25 75	Shale, gray.	3 276
Broadway and Louviers Alluvium,		Shale, brown.	35 110	Coal and layers of	
undifferentiated:		Shale, gray.	18 128	gray shale.	3 279
Sand, fine.	8 16	Sand, gray.	4 132	Shale, gray.	8 287
Clay.	4 40	Shale, caving, green.	8 140	Shale, sandy, gray	4 291
Sand.	10 50	Clay, blue.	25 165	Shale, gray.	6 297
Clay.	4 54	Clay, gray.	5 170	Shale, sandy, blue	11 308
<b>CJ-66-17asad. Alt. 5,380 ft.</b>		<b>CJ-66-11cbdb2. Alt. 5,350 ft.</b>		Shale, sandy, gray	5 313
Eolian sand:		Piney Creek Alluvium:		Sandstone, gray, and	
Sand.	10 10	Topsoil	2 2	sandy shale.	4 317
Clay.	16 26	Clay, yellow to brown	12 14	Shale, brown	10 327
Broadway Alluvium:		Broadway Alluvium:		Shale, gray.	19 346
Sand.	8 34	Sand, fine (water-bear-		Coal blossom	2 348
Dawson Formation (upper part):		ing).	8 22	Coal	3 351
Clay.	10 44	Dawson Formation (upper part):		Shale, gray.	10 361
Shale	38 82	Shale, medium hard, gray		Sandstone, gray, and	
Coal.	3 85	to blue	68 90	shale.	8 369
Shale	11 96	Sandstone (water-bear-		Shale, gray.	4 373
Shale, sandy.	7 103	ing).	20 110	Shale, sandy, gray	7 380
Shale	93 196	Shale, gray	180 290	Sandstone, gray, and	
Rock.	1 197	Sand [Upper conglomer-		gray shale	9 389
Shale	18 215	ate, 290 to 445		Shale, gray.	68 437
Upper conglomerate:		feet.]	30 320	Shale, blue.	4 461
Sand.	39 254	Shale, gray	90 410	Shale, sandy, gray	5 466
Shale	15 269	Shale, and layers of		Shale, gray.	9 475
<b>CJ-66-17bdcd. Alt. 5,325.9 ft.</b>		sand.	35 445	Coal blossom	1 476
Eolian sand:		Shale, medium hard,		Shale, gray.	31 507
Sand, fine.	7 7	gray to blue; con-		Shale, sandy, gray	5 512
Clay.	20 27	tains layers of sand	265 710	Shale, gray.	18 530
Broadway and Louviers Alluvium,		Dawson Formation (lower part):		Shale, blue.	8 538
undifferentiated:		Sand [Middle conglomer-		Shale, gray.	3 541
Gravel, fine and some		ate, 710 to 835		Sand, fine, gray	7 548
sand.	21 48	feet.]	125 835	Shale, gray.	16 564
Dawson Formation:		Shale, dark-gray.	155 990	Limestone, sandy	1 565
Clay.	19 67	Sand [Lower conglomer-		Shale, gray.	8 573
Shale	3 70	ate, 990 to 1,069		Sand, fine, gray	3 576
<b>CJ-66-29cdad. Alt. 5,383 ft.</b>		feet.]	79 1,069	Shale, gray.	42 618
Piney Creek Alluvium:		<b>CJ-66-11cdcb. Alt. 5,365 ft.</b>		Shale, blue.	13 631
Clay, sandy	20 20	Clay, fill.	5 5	Shale, gray.	27 658
Broadway and Louviers Alluvium,		Piney Creek Alluvium:		Shale, sandy, gray	5 663
undifferentiated:		Topsoil	3 8	Sand, fine, gray	7 670
Sand mixed with clay	22 42	Clay, sandy, brown.	12 20	Shale, gray.	7 677
Sand and gravel	6 48	Broadway Alluvium:		Shale, sandy, gray	26 703
Dawson Formation:		Sand and gravel (water-		Shale, blue.	20 723
Shale	12 60	bearing).	6 26	Sand, fine, gray	2 725
<b>CJ-66-10dadc. Alt. 5,363 ft.</b>		Dawson Formation (upper part):		Shale, gray.	29 754
Piney Creek Alluvium:		Shale, gray to blue;		Sand, fine, gray, and	
Clay, sandy	9 9	occasional layers of		layers of shale.	7 761
Broadway Alluvium:		coal.	266 292	Shale, gray.	79 840
Sand, fine.	8 17	Shale; contains layers		Shale, sandy, gray	7 847
Gravel.	4 21	of sand [Upper con-		Shale, gray.	4 851
Dawson Formation (upper part):		glomerate, 292 to		Dawson Formation (lower part):	
Clay.	3 24	368 feet.]	76 368	Middle conglomerate:	
Shale	1 27	Shale, gray to blue;		Sand, fine, gray	9 860
Coal.	2 36	occasional sand		Sand, fine, gray, and	
Rock.	1 42	breaks.	358 726	layers of shale.	7 867
Sandstone, hard	8 50	Dawson Formation (lower part):		Shale, gray.	3 870
Coal.	2 52	Sand; occasional shale		Sand, fine, gray	2 872
Shale	6 58	breaks [Middle con-		Shale, sandy, gray	8 880
Coal.	2 60	glomerate, 743 to		Sand, fine, gray	10 890
Shale	20 80	870 feet.]	144 870	Shale, gray.	2 892
Shale, soft, blue	12 92	Shale, gray	146 1,016	Sand, fine, gray	7 899
Shale, soft, gray	10 102	Lower conglomerate:		Limestone.	1 900
Rock.	1 103	Sand.	18 1,034	Sand	9 909
Shale	14 117	Shale, gray	50 1,084	Shale.	4 913
Coal.	2 119	Sand.	26 1,110	<b>CJ-66-14asdb. Alt. 5,487.0 ft.</b>	
Shale, gray	17 136	Shale	50 1,160	Eolian sand:	
Coal.	3 139	<b>CJ-66-12bbca. Alt. 5,554 ft.</b>		Sand, very fine, and	
Shale	25 164	Dawson Formation (upper part):		brown loose silt	2.5 2.5
Shale, soft, gray	54 218	Clay, sandy	56 56	Silt, very sandy, very	
		Clay, gray.	10 66	calcareous, yellowish-	
		Shale, dark-gray.	13 79	brown.	3.5 6
		Sandstone, gray, and		Dawson Formation (upper part):	
		layers of gray shale	24 103	Shale, very silty, soft,	
		Shale, blue	6 109	noncalcareous,	
				micaceous, moderate-	
				yellowish-brown and	
				pale-yellowish-orange	1 7

Table J.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C1-66-14cbah.</b> Alt. 5,440 ft.		<b>C1-67-14cbac.</b> Alt. 5,209.0 ft.		<b>C1-67-14bcd1.</b> --Continued	
Dawson Formation (upper part):		Topsoil . . . . .	7	3 sandstone:	
Shale, black. . . . .	190	Sand, fine, silty . . . . .	2.6 3.3	Sand, fine, clean.	105 1,385
Shale, gray . . . . .	200	Verdos(?) Alluvium:		A sandstone:	
Shale, black. . . . .	233	Silt, calcareous; contains		Sand and shale inter-	
Shale, gray . . . . .	237	montmorillonite . . . . .	1.7 5	bedded . . . . .	10 1,415
Shale, black. . . . .	300	Silt, sandy, clayey . . . . .	6.2 11.2	Shale; contains streaks	
Coal . . . . .	360	Sand, fine, silty . . . . .	2.9 14	of sand. . . . .	45 1,460
Shale, gray . . . . .	20 380	Sand, fine, loose . . . . .	17.6 31.6	Fox Hills Sandstone Member:	
Sand [Upper conglomerate,		Sand, fine to medium . . . . .	5.6 17.2	Milliken Sandstone Member:	
180 to 410 feet.] . . . .	10 410	Sand, fine . . . . .	19.4 76.6	Sand, fine, silty.	
Shale, gray . . . . .	50 460	Sand, fine to medium,		dirty. . . . .	15 1,495
Shale, black and gray		loose . . . . .	7.7 84.3	Shale, sandy . . . . .	15 1,510
mixed . . . . .	20 480	Sand, coarse, loose . . . . .	4.1 88.4	Sand, silty. . . . .	10 1,520
Limestone, white, and		Sand, coarse, gravelly,		Shale, clayey. . . . .	5 1,525
gray shale mixed. . . . .	20 500	loose . . . . .	7.2 95.6		
Shale, greenish . . . . .	10 510	Gravel, fine, sandy;			
Shale, black. . . . .	5 515	contains pebbles as		<b>C1-67-5ddddd.</b> Alt. 5,191 ft.	
Rock, gray. . . . .	5 520	large as 2 inches in		Eolian sand:	
Shale, black. . . . .	10 530	diameter. . . . .	7 102.6	Clay, sandy. . . . .	45 45
Shale, blue, and some		Sand, medium to coarse,		Louviers Alluvium:	
sand. . . . .	15 545	loose . . . . .	1.6 106.2	Clay . . . . .	10 55
Shale, black; contains		Sand, coarse, loose . . . . .	1.9 110.1	Gravel . . . . .	10 65
some white sandstone	18 563	Dawson Formation:		Clay . . . . .	10 75
Shale, blue . . . . .	27 590	Shale, weathered. . . . .	2.1 112.2	Gravel . . . . .	5 80
Shale, blue, and some					
white sandstone . . . . .	5 595			<b>C1-67-5ddddd2.</b> Alt. 5,189.0 ft.	
Shale, blue, mixed with		<b>C1-67-14cbag.</b> Alt. 5,180 ft.		Eolian sand:	
gray and white rock . . . .	5 600	Eolian sand:		Soil, sandy. . . . .	4 4
Shale, crumbly, gray. . . .	55 655	Soil . . . . .	6 6	Clay, yellow, soft . . . .	8 12
Shale, sticky, gray . . . .	75 730	Sand . . . . .	11 17	Louviers Alluvium:	
Shale, black. . . . .	5 735	Verdos Alluvium:		Sand, loose. . . . .	33 45
Shale, sandy. . . . .	61 796	Soil, sandy . . . . .	9 26	Clay, yellow . . . . .	10 55
Dawson Formation (lower part):		Clay. . . . .	31 66	Sand, loose, coarse. . . .	7 62
Middle conglomerate:		Gravel . . . . .	14 80	Clay, yellow . . . . .	3 65
Sand. . . . .	116 912	Sand, dirty . . . . .	8 88	Sand . . . . .	17 82
Shale, sandy. . . . .	8 920	Clay. . . . .	3 91	Dawson Formation (upper part):	
Sand. . . . .	21 941	Gravel. . . . .	5 96	Shale, gray. . . . .	16 98
Shale, sandy. . . . .	5 946	Dawson Formation:		Shale, gray, and sand-	
		Shale . . . . .	1 97	stone. . . . .	7 105
<b>C1-66-14cbdd.</b> Alt. 5,441 ft.				Shale, gray. . . . .	17 122
Piney Creek Alluvium:		<b>C1-67-14bcd2.</b> Alt. 5,165 ft.		Sandstone, gray. . . . .	6 128
Soil, surface . . . . .	6 6	Eolian sand:		Shale, blue and gray . . .	44 172
Loam, finely sandy. . . . .	11 17	Clay. . . . .	6 6	Shale, sandy, gray . . . .	2 174
Broadway and Louviers Alluvium.		Louviers Alluvium:		Shale, gray and blue . . .	23 197
undifferentiated:		Clay, sandy . . . . .	40 46	Shale, sandy, gray . . . .	6 203
Sand and gravel (water-		Gravel . . . . .	15 61	Shale, blue and gray . . .	29 212
bearing). . . . .	43 60			Coal, soft, lignitic . . .	5 217
		<b>C1-67-14bcd1.</b> Alt. 5,167.3 ft.		Shale, blue and gray . . .	40 277
<b>C1-66-15bcbh.</b> Alt. 5,512 ft.		Eolian sand and Louviers Alluvium.		Shale, gray, interbedded	
Eolian sand:		undifferentiated:		with layers of thin	
Topsoil; sandy loam . . . .	2 2	Sand, fine, silty . . . . .	60 60	sand . . . . .	21 298
Dawson Formation (upper part):		Dawson Formation (upper part):		Shale, gray. . . . .	22 320
Clay, yellow to gray. . . .	63 65	Shale, silty, clayey;		Sand, fine, and gray	
Shale, gray, occasional		contains streaks of		shale interbedded in	
sandy breaks. . . . .	145 210	sand. . . . .	195 255	thin layers. . . . .	10 330
Sandstone . . . . .	15 245	Sand, medium to coarse;		Sand, fine; contains	
Shale . . . . .	43 288	contains coal		thin layers of coal;	
Coal. . . . .	2 290	particles . . . . .	15 270	lignitic . . . . .	13 343
Sandstone layers and		Shale; contains streaks		Shale, gray, silty . . . .	79 422
interbedded shale		of sand . . . . .	50 320	Dawson Formation (lower part):	
breaks. . . . .	230 520	Sand, fine to medium		Sand, fine [Middle con-	
Shale, medium hard. . . . .		[Upper conglomerate,		glomerate, 422 to	
gray to black . . . . .	320 840	120 to 410 feet.] . . . .	15 335	500 feet.] . . . . .	26 448
Dawson Formation (lower part):		Shale, gray . . . . .	5 340	Shale, gray to brown . . .	26 474
Sandstone and occasional		Sand, fine. . . . .	15 355	Sand, fine, and gray	
shale breaks (Middle		Shale, gray . . . . .	25 380	shale interbedded. . . .	11 485
conglomerate, 840 to		Sand, fine. . . . .	10 390	Shale, gray, and sand-	
1,202 feet.] . . . . .	162 1,002	Sand, silty, gray. . . . .	10 400	stone. . . . .	15 500
Shale, black. . . . .	96 1,098	Sand, fine. . . . .	10 410	Shale, gray; occasional	
Lower conglomerate:		Shale, gray; contains		thin layers of sand-	
Sandstone and occasional		thin beds of sand		stone. . . . .	97 597
shale breaks. . . . .	102 1,200	and coal. . . . .	160 570	Sand, fine, soft, clean	
Shale, dark-gray. . . . .	22 1,222	Dawson Formation (lower part):		[Lower conglomerate,	
		Sand, fine to medium		597 to 785 feet.] . . . .	11 608
<b>C1-67-1ddddd.</b> Alt. 5,276.2 ft.		[Middle conglomerate,		Shale, silty, gray . . . .	18 626
Eolian sand:		570 to 630 feet.] . . . .	60 630	Sand, fine, soft, clean	20 646
Topsoil . . . . .	6 6	Shale, gray, silty. . . . .	40 670	Shale, sticky, gray. . . .	18 664
Sand, fine, silty . . . . .	22.8 23.4	Lower conglomerate:		Sand, fine, soft, clean	14 678
Verdos(?) Alluvium:		Sand, fine to medium. . . .	10 680	Shale, silty, gray . . . .	7 685
Silt, sandy, clayey . . . . .	9 24.3	Shale; contains coal		Sand, fine; shale inter-	
Sand, fine, silty. . . . .		streaks . . . . .	75 755	bedded . . . . .	68 753
loose, soft . . . . .	2.8 27.1	Sand, medium to coarse	20 773	Shale, sticky, gray. . . .	12 765
Silt, sandy, clayey . . . . .	2.3 29.4	Shale . . . . .	10 785	Sand, fine, and gray	
Sand, fine, silty, soft . . .	3.3 32.7	Sand, silty, shaly. . . . .	15 800	shale. . . . .	20 785
Clay, silty . . . . .	3.7 36.4	Shale, gray . . . . .	35 835	Laramie Formation:	
Silt, sandy, clayey . . . . .	4.8 41.2	Sand, silty, shaly. . . . .	10 845	Shale, sticky, gray. . . .	15 800
Sand, fine, silty . . . . .	1.2 42.4	Laramie Formation:			
Silt, sandy, clayey . . . . .	2.6 45	Shale; contains thin		<b>C1-67-7abca.</b> Alt. 5,153 ft.	
Sand, fine, loose . . . . .	11.2 56.2	beds of sand and		Piney Creek Alluvium:	
Sand, fine to medium,		coal. . . . .	190 1,035	Soil . . . . .	2 2
loose . . . . .	1.2 57.4	Sand, fine. . . . .	15 1,050	Clay, sandy. . . . .	6 8
Sand, fine to medium,		Shale . . . . .	5 1,055	Broadway Alluvium:	
clayey. . . . .	3.1 60.5	Sand, fine. . . . .	5 1,060	Sand . . . . .	11 19
Sand, fine, loose . . . . .	1.7 62.2	Shale; contains streaks		Dawson Formation (upper part):	
Sand, medium to fine,		of coal . . . . .	80 1,140	Clay, yellow and gray. . .	9 28
loose . . . . .	1.4 65.6	Sand, fine. . . . .	20 1,160	Shale, gray. . . . .	92 120
Sand, fine, silty . . . . .	5.2 70.8	Shale; contains much		Coal . . . . .	1 121
Sand, medium, loose;		coal. . . . .	65 1,225	Shale, gray. . . . .	14 135
contains carbonaceous		Coal. . . . .	10 1,235	Shale, blue. . . . .	7 142
streaks . . . . .	2.5 73.3	Shale; contains streaks		Shale, gray. . . . .	4 146
Sand, coarse, loose . . . .	1.9 75.2	of coal . . . . .	45 1,280	Limestone, sandy, white	1 147
Dawson Formation:				Shale, gray. . . . .	2 149
Siltstone, weathered. . . .	1.8 77				

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CJ-67-7abca. --Continued		CJ-67-11ddda. Alt. 5,279 ft.		CJ-67-14bcbb. --Continued	
Sandstone, gray . . . . .	5	154	Eolian sand:	Sand, very fine to	
Shale, gray . . . . .	15	169	Topsoil . . . . .	medium, silty, sub-	
Shale, blue . . . . .	6	175	Sand, fine, silty . . . . .	angular to subrounded.	
Shale, sandy, blue . . . . .	9	184	Silt, sandy, compact . . . . .	micaceous, very cal-	
Shale, gray . . . . .	136	120	Silt, sandy, clayey . . . . .	careous, moderate-	
Shale, light-brown . . . . .	6	126	Sand, fine, silty . . . . .	yellow; contains	
Shale, gray . . . . .	11	137	Silt, sandy, soft . . . . .	montmorillonite . . . . .	5 52.5
Sandstone, gray . . . . .	8	145	loose . . . . .	Silt, very sandy, very	
Shale, light-brown . . . . .	2	147	Sand, fine, silty, . . . . .	calcareous, dusky-	
Sandstone, gray . . . . .	2	149	loose . . . . .	yellow; contains	
Shale, gray . . . . .	26	175	Verdos Alluvium:	montmorillonite . . . . .	5.5 58
Sandstone, fine, white . . . . .	1	178	Sand, medium, loose . . . . .	Dawson Formation (upper part):	
Shale, gray . . . . .	14	192	Silt, clayey . . . . .	Sandstone . . . . .	2 60
Lime . . . . .	1	193	Sand, fine, silty . . . . .	Shale, silty, noncal-	
Sandstone, gray . . . . .	8	401	Sand, fine, loose . . . . .	careous, dusky-yellow;	
Shale, gray . . . . .	14	415	Silt, sandy, clayey, . . . . .	contains much mont-	
Sandstone, gray . . . . .	6	421	compact . . . . .	morillonite, at 60	
Shale, gray . . . . .	31	452	Sand, fine to medium . . . . .	feet	
Shale, blue . . . . .	4	456	Silt, sandy . . . . .		
Shale, gray . . . . .	65	521	Clay, silty . . . . .		
Dawson Formation (lower part):			Sand, fine, silty . . . . .		
Middle conglomerate:			Sand, fine to medium . . . . .		
Sandstone, gray . . . . .	22	543	Dawson Formation (upper part):		
Shale, gray . . . . .	20	563	Siltstone, weathered:		
Sand . . . . .	1.5	564.5	2-inch concretions:		
Shale, gray . . . . .	49.5	614	Iron stains . . . . .	4.7 86	
Lime, sandy, white . . . . .	9	623			
Shale, gray . . . . .	15	638			
Shale, brown . . . . .	2	640			
Shale, gray . . . . .	8	648			
Lower conglomerate:					
Sand, fine, white . . . . .	11	659			
Shale, sandy, gray . . . . .	11	670			
Sand, white . . . . .	11	681			
Shale . . . . .	9	690			
Sand, white . . . . .	10	700			
Shale . . . . .	5	705			
CJ-67-7acaa. Alt. 5,158 ft.		CJ-67-12dcda. Alt. 5,283 ft.		CJ-67-14ccgb. Alt. 5,280 ft.	
Piney Creek Alluvium:			Eolian sand:	Sand, very fine to	
Topsoil . . . . .	8	8	Topsoil . . . . .	medium, subangular,	
Broadway Alluvium:			Silt, sandy . . . . .	micaceous, arkosic,	
Gravel, fine, dirty . . . . .	2	10	Sand, fine, silty, . . . . .	loose . . . . .	6.5 6.5
Gravel . . . . .	5	15	loose . . . . .	Silt, very sandy, com-	
Louviers Alluvium:			Silt, clayey . . . . .	compact, very calcareous,	
Clay . . . . .	1	16	Sand, fine, silty . . . . .	moderate-yellowish-	
Gravel, coarse . . . . .	4	20	Verdos Alluvium:	brown; contains very	
Shale . . . . .	2	22	Sand, medium, loose . . . . .	fine sand and some	
			Sand, fine . . . . .	montmorillonite . . . . .	3.5 10
			Sand, medium, loose . . . . .	Sand, very fine to	
			Sand, fine, loose . . . . .	medium, very silty,	
			Sand, medium, loose, . . . . .	very calcareous,	
			contains coarse . . . . .	arkosic, dark-yellowish-	
			gravel . . . . .	orange; contains about	
			Sand, medium, loose: . . . . .	50 percent silt . . . . .	2.5 12.5
			pieces of shale float . . . . .	Silt, very sandy, very	
			Dawson Formation (upper part):	calcareous, moderate-	
			Siltstone, clayey, . . . . .	yellowish-brown . . . . .	10 22.5
			weathered . . . . .	Silt, very calcareous,	
				moderate-yellowish-	
				brown, and about 50	
				percent fine to medium	
				arkosic sand . . . . .	2.5 23
				Dawson Formation (upper part):	
				Shale at 25 feet	
CJ-67-8bbab. Alt. 5,169 ft.		CJ-67-14acaa. Alt. 5,270.5 ft.		CJ-67-17abba. Alt. 5,204 ft.	
Eolian sand and Louviers Alluvium,			Piney Creek Alluvium and eolian sand,	Overburden . . . . .	12 12
undifferentiated:			undifferentiated:	Dawson Formation (upper part):	
Sand and clay . . . . .	35	35	Clay . . . . .	Clay, blue, and shale . . . . .	328 160
Louviers Alluvium:			Clay . . . . .	Sand . . . . .	10 370
Gravel, rock; contains			Broadway Alluvium:	Clay and shale . . . . .	59 429
small layer of clay	15	50	Sand . . . . .	Dawson Formation (lower part):	
			Louviers Alluvium:	Sand [Middle conglomerate,	
			Gravel . . . . .	429 to 510 feet.] . . . . .	16 445
			Clay . . . . .	Clay . . . . .	5 450
			Gravel . . . . .	Sand . . . . .	7 457
			Gravel . . . . .	Clay . . . . .	11 468
			Clay . . . . .	Sand and sandstone; two	
			Gravel, coarse . . . . .	small streaks of clay	42 510
			Clay . . . . .	Clay and shale . . . . .	135 645
				Lower conglomerate:	
				Sand and sandstone . . . . .	20 665
				Shale . . . . .	10 675
				Sand, tight . . . . .	10 685
				Sand . . . . .	10 695
				Shale . . . . .	4 699
				Sand . . . . .	11 710
				Shale . . . . .	17 727
				Shale, sandy . . . . .	3 730
CJ-67-9ccad. Alt. 5,212.3 ft.		CJ-67-14bcbb. Alt. 5,262 ft.		CJ-67-17bdab. Alt. 5,210 ft.	
Eolian sand:			Eolian sand:	Sand, very fine to fine.	
Topsoil . . . . .	.7	.7	Sand, very fine to fine.	fairly well-sorted,	
Sand, fine, loose . . . . .	20	20.7	Silt, sandy, very cal-	carcareous, white-spotted,	
Silt, clayey . . . . .	1.7	24.4	careous, subangular to	light-olive-brown;	
Sand, fine, silty . . . . .	1.9	28.3	subrounded; contains	resembles caliche;	
Sand, medium . . . . .	2.6	30.9	dark-yellowish-orange	contains very fine	
Verdos(?) Alluvium:			very calcareous silt	sand . . . . .	6.5 12.5
Silt, fine, sandy,			Sand, very fine to very	Sand, very fine to very	
clayey . . . . .	1.7	14.6	coarse, poorly sorted,	coarse, poorly sorted,	
Clay, silty . . . . .	1.7	18.3	arkosic, subangular to	arkosic, subangular to	
Silt, sandy, clayey . . . . .	6.8	45.1	subrounded; contains	subrounded; contains	
Sand, fine, loose . . . . .	6.4	51.5	dark-yellowish-orange	dark-yellowish-orange	
Silt, clayey; contains			thin layers of silty,	very calcareous silt	4.5 17
fine sand . . . . .	3.3	54.8	loose . . . . .	Verdos Alluvium:	
Sand, silty, fine, soft,			loose . . . . .	Clay, very sandy, sticky,	
loose . . . . .	2.5	57.3	tan . . . . .	tan . . . . .	1 18
Sand, coarse, loose . . . . .	13.1	70.4	Silt, sandy, very cal-	Silt, sandy, very cal-	
Dawson Formation (upper part):			careous, dusky-yellow,	careous, dusky-yellow,	
Claystone, weathered . . . . .	4.6	75	white-spotted . . . . .	white-spotted . . . . .	12 30
			Sand, very fine to	Sand, very fine to	
			medium, silty, arkosic,	medium, silty, arkosic,	
			micaceous, subangular	micaceous, subangular	
			to subrounded, dusky-	to subrounded, dusky-	
			yellow . . . . .	yellow . . . . .	3 33
			Clay, sandy, light-	Clay, sandy, light-	
			brown . . . . .	brown . . . . .	11 44
			Silt, micaceous, cal-	Silt, micaceous, cal-	
			careous, moderate-	careous, moderate-	
			olive-brown; contains	olive-brown; contains	
			montmorillonite . . . . .	montmorillonite . . . . .	3.5 47.5
CJ-67-10adde. Alt. 5,241 ft.		CJ-67-14bcbb. Alt. 5,262 ft.		CJ-67-17bdab. Alt. 5,210 ft.	
Eolian sand:			Eolian sand:	Sand, very fine to fine.	
Topsoil . . . . .	.7	.7	Sand, very fine to fine.	fairly well-sorted,	
Sand, fine, silty, . . . . .			Silt, sandy, very cal-	careous, dusky-yellow,	
loose . . . . .	5.9	6.6	white-spotted . . . . .	white-spotted . . . . .	12 30
Sand, fine, loose . . . . .	1.8	8.4	Sand, very fine to	Sand, very fine to	
Sand, medium, loose . . . . .	4.4	12.8	medium, silty, arkosic,	medium, silty, arkosic,	
Sand, fine, loose . . . . .	7.9	20.7	micaceous, subangular	micaceous, subangular	
Sand, fine to medium,			to subrounded, dusky-	to subrounded, dusky-	
loose . . . . .	1.6	24.3	yellow . . . . .	yellow . . . . .	3 33
Verdos(?) Alluvium:			Clay, sandy, light-	Clay, sandy, light-	
Sand, coarse, loose . . . . .	1.6	25.9	brown . . . . .	brown . . . . .	11 44
Sand, fine, loose . . . . .	1.9	27.8	Silt, micaceous, cal-	Silt, micaceous, cal-	
Sand, fine, silty, . . . . .			careous, moderate-	careous, moderate-	
loose . . . . .	1.4	11.2	olive-brown; contains	olive-brown; contains	
Sand, medium, loose . . . . .	7.5	18.7	montmorillonite . . . . .	montmorillonite . . . . .	3.5 47.5
Silt, sandy, soft . . . . .	4	42.7			
Silt, sandy, clayey . . . . .	12.4	55.1			
Sand, fine, silty . . . . .	1	56.1			
Sand, medium, loose . . . . .	4	56.5			
Dawson Formation (upper part):					
Claystone, weathered . . . . .	2.5	59			
Shale, weathered . . . . .	3.2	62.2			
					</

Table J.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>CJ-67-18acdd2. --Continued</b>		<b>CJ-67-24bddd. Alt. 5,330 ft.</b>		<b>CJ-67-35adda. --Continued</b>	
Clay and shale. . . . .	147	Eolian sand, Broadway and Louviers		Sand; occasional thin	
Lower conglomerate:		Alluvium, and Dawson Formation,		shale breaks (water)	
Clay, and streaks of		undifferentiated:		Middle conglomerate:	
packed sand. . . . .	15	Surface sand and gravel		750 to 940 feet. . . . .	30
Sandstone and sand. . . . .	20	near top. . . . .	100	Shale, sandy. . . . .	15
Shale. . . . .	15				
	670				
<b>CJ-67-18bddd. Alt. 5,180 ft.</b>		Dawson Formation (upper and		Sand; occasional shale	
Post-Piney Creek alluvium:		lower parts, undifferentiated):		breaks (water) . . . . .	65
Sand. . . . .	6	Sand and gravel (water) 78	178	Shale, hard, dark-gray 75	1,015
Broadway Alluvium:		Coal and shale. . . . .	4	Lower conglomerate:	
Gravel. . . . .	9	No sample. . . . .	23	Sandstone (water-	
Louviers Alluvium:		Gravel (water). . . . .	11	bearing). . . . .	40
Clay. . . . .	11	Soapstone and clay. . . . .	284	Shale, sandy, hard.	
Gravel. . . . .	11	No sample. . . . .	22	dark-gray. . . . .	45
Clay. . . . .	3	Coal, shale, Scranton			
Dawson Formation (upper part):		coal (water). . . . .	7		
Sandstone, hard. . . . .	2	No sample. . . . .	271		
	42				
<b>CJ-67-19cddd. Alt. 5,265.7 ft.</b>		"Shale to the iron		<b>CJ-67-16acdb. Alt. 5,370 ft.</b>	
Piney Creek Alluvium:		deposit". . . . .	10	Younger loess:	
Clay. . . . .	9	Gravel (water). . . . .	10	Loam. . . . .	15
Broadway Alluvium:		Shale. . . . .	10	Broadway Alluvium:	
Gravel. . . . .	18	No sample. . . . .	264	Gravel, sandy. . . . .	21
Louviers Alluvium:				Louviers Alluvium:	
Clay. . . . .	4	Laramie Formation:		Clay and gravel. . . . .	4
Gravel. . . . .	7	Shale, lim. (water). . . . .	14	Dawson Formation (upper part):	
Clay. . . . .	12	No sample. . . . .	120	Shale, brown. . . . .	10
Gravel. . . . .	12	Shale and sand. . . . .	17	Shale, blue. . . . .	5
Clay. . . . .	12	No sample. . . . .	55	Coal. . . . .	1.5
Gravel. . . . .	12	Shale, light-colored		Shale, brown. . . . .	7.5
Clay. . . . .	12	(gas flow). . . . .	140	Sandrock. . . . .	5
Gravel, fine. . . . .	6	Shales, black. . . . .	30	Shale, sandy, hard. . . . .	15
Dawson Formation:		Shales, black; contains		Clay. . . . .	5
Clay. . . . .	12	shells (show of oil) 5	1,475	Shale. . . . .	78
Shale. . . . .	3	Shale, brown. . . . .	65	Rock. . . . .	2
	95	Coal. . . . .	10	Shale and clay. . . . .	114
				Sandrock [Upper con-	
<b>CJ-67-21dddd. Alt. 5,250 ft.</b>		S and A sandstones,		glomerate, 284 to	
Post-Piney Creek alluvium:		undifferentiated:		291 feet. . . . .	2
Sand, silty, coarse. . . . .	2.5	Sand, solid. . . . .	130	Clay. . . . .	2
Louviers Alluvium:		Shale. . . . .	10	Sand, white. . . . .	4
Sand, very fine, very				Clay and shale. . . . .	134
silty, arkosic, sub-		Fox Hills Sandstone:		Rock. . . . .	5
angular, only slightly		Milliken Sandstone Member:		Clay. . . . .	22
calcareous; 40 to 50		Sand (show of oil). . . . .	20	Sandrock, soft. . . . .	8
percent silt. . . . .	3.5	Transition zone:		Clay and shale. . . . .	115
Sand, medium to very		Shale and limestone;		Rock. . . . .	2
coarse, subangular,		shells. . . . .	140	Sandrock, soft. . . . .	28
arkosic, and about		Shale and shells		Clay. . . . .	20
20 percent very fine		(show of oil). . . . .	100	Shale, caved. . . . .	65
gravel; contains		Shale and shells. . . . .	60	Dawson Formation (lower part):	
dark-yellowish-orange		Shale and shells (oil		Middle conglomerate:	
silt from 10.0 feet		sand). . . . .	55	Sandrock (water). . . . .	40
to 14.0 feet and		Total depth 3,790 feet		Clay and shale. . . . .	60
cobbles from 11.0				Sandrock, hard. . . . .	15
feet to 12.0 feet. . . . .	8			Sandrock (water). . . . .	98
Dawson Formation (upper part):				Shale, black. . . . .	24
Shale, clay, noncalcareous,					
dusky-yellow; contains					
limonite and montmorillo-					
nite and has sandy					
streaks. . . . .	6				
	20				
<b>CJ-67-22cddd. Alt. 5,265 ft.</b>					
Piney Creek Alluvium:					
Clay, silty, dark-brown	2.5				
Sand, very fine to					
medium, very silty,					
calcareous, dark-					
yellowish-brown. . . . .	2.5				
Clay, silty, dark-					
brown. . . . .	5				
Louviers Alluvium:					
Silt, sandy and clayey,					
very calcareous, very					
micaceous. . . . .	2				
Sand, fine to coarse,					
subangular to sub-					
rounded, arkosic,					
silty, pale-yellow-					
ish-brown. . . . .	5				
Sand, very fine to very					
coarse, mostly sub-					
angular to subrounded;					
contains a little very					
fine gravel, well-					
rounded sand, and pale-					
yellowish-brown silt	7.5				
Gravel, very fine to					
fine, angular to sub-					
rounded, silty, and					
poorly sorted sand.	7.5				
Sand, very fine to very					
coarse, poorly sorted,					
arkosic, subangular to					
subrounded, and about					
10 percent very fine					
gravel. . . . .	2.5				
Gravel, very fine to					
fine, angular to sub-					
rounded, fairly clean,					
and poorly sorted					
sand. . . . .	3				
Dawson Formation (upper part):					
Shale, silty and sandy,					
calcareous, micaceous,					
moderate-yellowish-brown;					
contains montmorillo-					
nite. . . . .	4.5				
	17.5				

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C1-68-1cddc.</b> Alt. 5.165 ft. Post-Piney Creek alluvium: Topsoil . . . . . 5 5 Broadway and Louviers Alluvium, undifferentiated: Gravel . . . . . 28 33					
<b>C1-68-4acdb.</b> Alt. 5.232.6 ft. Younger loess: Soil, surface . . . . . 5 5 Clay, yellow . . . . . 30 15 Louviers Alluvium: Sand and gravel (water) 20 55 Dawson Formation: Clay, blue . . . . . 15 70					
<b>C1-68-4bccc.</b> Alt. 5.246.0 ft. Younger loess and Louviers Alluvium, undifferentiated: Sand and shale . . . . . 20 20 Louviers Alluvium: Boulders and gravel . . . . . 10 30 Dawson Formation: Shale, gray . . . . . 5 35					
<b>C1-68-5ccbb.</b> Alt. 5.275.5 ft. Piney Creek Alluvium: Topsoil . . . . . 18 18 Slocum Alluvium: Clay . . . . . 9 27 Gravel . . . . . 22 49 Dawson Formation: Shale . . . . . 1 50					
<b>C1-68-5ccdc.</b> Alt. 5.252.8 ft. Younger loess: Topsoil, and pale-yellowish- brown sandy very cal- careous finely micaceous silt . . . . . 2.5 2.5 Silt, compact, micaceous, very calcareous, pale- yellowish-brown . . . . . 5.5 8 Dawson Formation (upper part): Shale, very silty, hard, very calcareous, grayish-orange . . . . . 4.5 12.5					
<b>C1-68-5dasa.</b> Alt. 5.245 ft. Fill . . . . . 1 1 Younger loess: Clay, yellow . . . . . 18 19 Sand . . . . . 3 22 Slocum Alluvium: Clay, yellow . . . . . 10 12 Sand and gravel . . . . . 11 43 Dawson Formation (upper part): Shale, blue . . . . . 8 51 Shale, gray . . . . . 139 190 Dawson Formation (lower part): Sand [Middle conglomer- ate, 180 to 235 feet.] 12 202 Shale, gray . . . . . 7 209 Sand . . . . . 21 230 Shale, gray . . . . . 61 291 Shale, blue . . . . . 6 297 Shale, gray . . . . . 19 316 Shale, gray, and fine sand . . . . . 19 335 Lower conglomerate: Sand and gray shale . . . . . 128 463 Shale, gray . . . . . 19 482 Sand . . . . . 19 521 Shale, gray . . . . . 52 573 Sand . . . . . 21 594 Shale, gray, and fine sand . . . . . 46 640					
<b>C1-68-5dcab.</b> Alt. 5.254 ft. Younger loess: Topsoil . . . . . 15 15 Louviers Alluvium: Gravel (water, shut out) . . . . . 20 35 Dawson Formation (upper part): Shale . . . . . 73 108 Dawson Formation (lower part): Middle conglomerate: Sandstone, blue . . . . . 15 123 Shale . . . . . 2 125					
<b>C1-68-6cadd.</b> Alt. 5.303 ft. Younger loess: Soil . . . . . 2 2 Clay, yellow . . . . . 15 17 Dawson Formation (upper part): Clay, yellow and gray 14 51 Dawson Formation (lower part): Shale, gray, and sand- stone [Middle con- glomerate, 51 to 219 feet.] . . . . . 69 120 Lime, sandy . . . . . 5 125					
<b>C1-68-6cadd.</b> --Continued Sand, fine . . . . . 13 138 Shale, gray . . . . . 19 157 Sand, fine, and gray shale . . . . . 23 180 Shale, gray, and fine sand . . . . . 36 216 Sand, fine, and gray shale . . . . . 20 236 Sandstone, gray . . . . . 7 243 Shale, gray . . . . . 21 264 Sandstone, gray . . . . . 4 268 Shale, gray . . . . . 6 274 Sandstone, gray . . . . . 15 289 Shale, gray . . . . . 19 328 Sandstone, gray . . . . . 11 339 Shale, gray . . . . . 5 344 Lime, sandy . . . . . 1 345 Lower conglomerate: Sand, medium to fine . . . . . 19 384 Sand, fine, and gray shale . . . . . 81 465 Shale, gray . . . . . 11 476 Sand, fine, and gray shale . . . . . 106 582 Shale, gray . . . . . 25 607 Shale, brown . . . . . 4 611 Shale, gray . . . . . 3 614					
<b>C1-68-6dccb.</b> Alt. 5.297.9 ft. Younger loess: Clay . . . . . 30 30 Dawson Formation (lower part): Middle conglomerate: Silt and caliche stringers, very hard . . . . . 2 32 Gravel, packed, very hard . . . . . 18 50 Gravel, loose . . . . . 10 60 Shale . . . . . 45 105					
<b>C1-68-7cabb.</b> Alt. 5.271 ft. Piney Creek Alluvium: Soil . . . . . 1 1 Clay, yellow . . . . . 6 7 Louviers Alluvium: Boulders . . . . . 7 14 Dawson Formation (upper part): Clay, yellow . . . . . 12 26 Shale, gray . . . . . 56 82 Dawson Formation (lower part): Sand, fine [Middle con- glomerate, 82 to 157 feet.] . . . . . 4 86 Shale, gray . . . . . 13 99 Sand, fine . . . . . 6 105 Shale, gray . . . . . 44 149 Sandstone, gray, and gray shale . . . . . 8 157 Lime, sandy . . . . . 3 160 Shale, gray . . . . . 23 183 Sandstone, gray, and shale . . . . . 36 219 Shale, gray . . . . . 26 245 Sandstone, gray . . . . . 19 264 Shale, gray . . . . . 17 281 Sandstone, gray . . . . . 14 295 Shale, gray . . . . . 19 314 Lower conglomerate: Sand, fine . . . . . 5 319 Lime, sandy . . . . . 4 323 Sand . . . . . 52 375 Sand and gray shale . . . . . 36 411 Shale, gray . . . . . 7 418 Sand and gray shale . . . . . 121 539 Shale, gray . . . . . 77 616					
<b>C1-68-8bbda.</b> Alt. 5.222.7 ft. Post-Piney Creek alluvium: Soil, loam, clayey, sandy, damp, brown . . . . . 5 5 Silt, sandy, clayey, noncalcareous, pale- brown; contains montmorillonite . . . . . 2 2.5 Silt, sandy, very micaceous, very cal- careous, grayish- orange; contains very fine to fine sand at 8 feet . . . . . 5.5 8 Silt, sandy, compact, very calcareous, moderate-yellowish- brown; contains montmorillonite . . . . . 3 11 Broadway Alluvium: Gravel, sand, and clay . . . . . 5 11.5 Clay, sandy, light-tan Gravel, very fine, and very fine to fine sand . . . . . 1 13 Clay, silty and sandy, plastic, gray . . . . . 1 14					
<b>C1-68-8bbda.</b> --Continued Gravel, very fine to medium, subangular to rounded, arkosic, and very fine to coarse sand . . . . . 21 Louviers Alluvium: Sand and silt; contains some fine angular to subrounded gravel and cobbles . . . . . 9 29 Dawson Formation (upper part): Shale, noncalcareous, medium-light-gray; contains montmorillo- nite . . . . . 3.5 32.5					
<b>C1-68-8bddd.</b> Alt. 5.205.3 ft. Post-Piney Creek alluvium: Cobbles, very fine to very coarse gravel, and medium to coarse sand; grains are angular to well- rounded . . . . . 5 5 Broadway Alluvium: Gravel, very fine to medium, subrounded to well-rounded, arkosic, and fine to very coarse sand . . . . . 1.4 1.3 Louviers Alluvium: Clay, very sandy, very micaceous, noncalcareous, brown, and some gravel . . . . . 1.7 3.6 Gravel, very fine to very coarse, subrounded to well-rounded, arkosic; iron stained Cobbles, very fine to coarse gravel, and sand . . . . . 1.5 6.3 Sand, medium to coarse, angular to subangular, arkosic . . . . . 1.1 7.4 Cobbles, coarse gravel, and sand, subrounded to well-rounded . . . . . 5 12.4 Sand, medium to very coarse, angular to subrounded . . . . . 8 13.2 Cobbles and coarse gravel, well-rounded . . . . . 3.6 16.8 Dawson Formation: Shale at 16.8 feet					
<b>C1-68-8dbbc.</b> Alt. 5.209.2 ft. Post-Piney Creek alluvium: Sand and loam, loose, tan . . . . . 6 6 Silt, noncalcareous, pale-yellowish-brown; contains some very fine sand . . . . . 2.5 9.5 Broadway Alluvium: Gravel, medium to coarse, subrounded to well- rounded, arkosic, and angular to subangular fine to medium sand . . . . . 1.5 10 Louviers Alluvium: Gravel and cobbles, well-rounded . . . . . 3 13 Sand, very fine to medium, silty, noncal- careous, finely micaceous, pale-yellowish-brown 1 14 Gravel, coarse, and cobbles . . . . . 3.5 17.5 Sand, very fine to medium, silty, slightly calcareous, pale- yellowish-brown . . . . . 2 19.5 Dawson Formation (upper part): Shale, slightly silty, noncalcareous, light- olive-gray and olive- gray; contains mont- morillonite . . . . . 3 22.5					
<b>C1-68-8dcab.</b> Alt. 5.204.2 ft. Post-Piney Creek alluvium: Silt, very sandy, micaceous, noncalcareous, plastic, dark-yellowish-brown 4 4 Louviers Alluvium: Sand, very fine to very coarse, subangular to subrounded, arkosic, micaceous, noncalcar- eous, in part silty, pale-yellowish-brown; contains some gravel, clay, and cobbles . . . . . 6.5 10.5					

Table 1.--Loss of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>CJ-68-8dcab.---Continued</b>		<b>CJ-68-10dadc.---Continued</b>		<b>CJ-68-11bcab.---Continued</b>	
Dawson Formation (upper part):		Clay and shale. . . . .		Laramie Formation:	
Shale, silty, noncalcareous,		Sand and sandstone. . . . .		Shale, hard. . . . .	
mucaceous, dark-gray;		Clay and shale. . . . .		Rock. . . . .	
contains montmorillonite.		Sand and sandstone. . . . .		Shale. . . . .	
2	12.5	Clay and shale. . . . .		Shale, gray. . . . .	
<b>CJ-68-9cadd2. Alt. 5,232 ft.</b>		Sand and sandstone. . . . .		Rock. . . . .	
Eolian sand:		Clay, sand, and sand-		Shale, brown. . . . .	
Clay. . . . .		stone. . . . .		Shale, gray. . . . .	
6	6	Clay and shale. . . . .		Shale, hard. . . . .	
Louviere Alluvium:		Sandstone. . . . .		<b>CJ-68-12cbag. Alt. 5,120 ft.</b>	
Sand and gravel. . . . .		Shale. . . . .		Post-Piney Creek alluvium:	
6	12	Lower conglomerate:		Topsoil. . . . .	
Dawson Formation (upper part):		Sand and sandstone. . . . .		Gravel. . . . .	
Slate, yellow. . . . .		Clay and shale. . . . .		Louviere Alluvium:	
Shale, blue. . . . .		Sandstone. . . . .		Clay. . . . .	
Shale, gray. . . . .		Shale. . . . .		Gravel. . . . .	
Sand and blue shale. . . . .		Sand and sandstone. . . . .		<b>CJ-68-12caba. Alt. 5,145 ft.</b>	
Sandstone. . . . .		Clay and shale. . . . .		Overburden. . . . .	
Shale, blue. . . . .		Sand. . . . .		Dawson Formation (upper part):	
Sandstone. . . . .		Shale. . . . .		Clay, blue, and shale. . . . .	
Shale, gray. . . . .		Rock. . . . .		Dawson Formation (lower part):	
50	135	Clay and shale. . . . .		Sand and sandstone	
Dawson Formation (lower part):		Sandstone. . . . .		[Middle conglomerate,	
Sandstone [Middle con-		Laramie Formation:		140 to 341 feet.] . . . . .	
glomerate, 135 to		Shale. . . . .		Clay, gray. . . . .	
351 feet.] . . . . .		Rock. . . . .		Sand and sandstone. . . . .	
Sandstone, gray. . . . .		Clay. . . . .		Clay, gray, and streaks	
Sandstone. . . . .		<b>CJ-68-11acda. Alt. 5,131.0 ft.</b>		of sandstone. . . . .	
Sandstone, gray. . . . .		Piney Creek Alluvium:		Sand. . . . .	
Rock, hard, brown. . . . .		Clay, sandy, brown. . . . .		Clay, gray. . . . .	
Slate, gray. . . . .		Louviere Alluvium:		Sandstone and sand. . . . .	
Sandstone. . . . .		Sand, coarse, gravel,		Shale, gray. . . . .	
Sandstone, gray. . . . .		and boulders. . . . .		Sandstone and sand. . . . .	
Slate, gray. . . . .		Dawson Formation (upper part):		Shale, gray. . . . .	
Sandstone. . . . .		Shale, blue. . . . .		Sandstone and sand. . . . .	
Lower conglomerate:		Dawson Formation (lower part):		Shale, gray. . . . .	
Sandstone. . . . .		Middle conglomerate:		Sandstone, hard. . . . .	
Slate, gray. . . . .		Sand, fine, gray. . . . .		Shale. . . . .	
Sandstone. . . . .		Shale, gray. . . . .		Lower conglomerate:	
Slate, gray. . . . .		Sand, very soft, gray. . . . .		Sandstone. . . . .	
Rock, hard. . . . .		Shale, gray. . . . .		Shale. . . . .	
Sandstone. . . . .		Sandstone, very hard,		Sandstone. . . . .	
Sandstone, blue. . . . .		gray. . . . .		Shale. . . . .	
Sandstone. . . . .		Shale, soft, gray. . . . .		Sandstone. . . . .	
Sandstone, gray. . . . .		Lower conglomerate:		Shale, broken. . . . .	
Sandstone. . . . .		Sandstone, gray. . . . .		Sandstone. . . . .	
Laramie(?) Formation:		Sandstone; contains		Shale. . . . .	
Shale, hard, blue-gray		streaks of shale. . . . .		Sandrock. . . . .	
71	708	Laramie Formation:		Shale, gray. . . . .	
<b>CJ-68-10ccdb. Alt. 5,220 ft.</b>		Shale, gray; contains		Sandstone. . . . .	
Eolian sand:		streaks of coal. . . . .		Shale, gray. . . . .	
Sand, fine, and clay. . . . .		<b>CJ-68-11adada2. Alt. 5,118.5 ft.</b>		Sandstone. . . . .	
Louviere Alluvium:		Post-Piney Creek alluvium:		Shale. . . . .	
Sand, gravel, and bould-		Sand and silt. . . . .		Sandstone. . . . .	
ers. . . . .		Gravel. . . . .		Shale. . . . .	
Dawson Formation (upper part):		Louviere Alluvium:		Sandstone. . . . .	
Shale, sandy, grayish		Clay. . . . .		Shale. . . . .	
Shales, green, blue,		Gravel to cobbles. . . . .		Sandstone. . . . .	
and black, in alter-		Dawson Formation:		Shale. . . . .	
nating layers. . . . .		Sh is at 30.0 feet		Sand. . . . .	
Dawson Formation (lower part):		<b>CJ-68-11bcab. Alt. 5,182 ft.</b>		Laramie Formation:	
Quartz sand, white clay,		Eolian sand:		Shale. . . . .	
and gravel [Middle		Clay. . . . .		Shale and streaks of	
conglomerate, 92 to		Louviere Alluvium:		sandstone. . . . .	
128 feet.] . . . . .		Gravel, dirty. . . . .		Shale. . . . .	
Shale, tough, grayish		Dawson Formation (upper part):		<b>CJ-68-12dadb. Alt. 5,150 ft.</b>	
Shale, tough, grayish		Clay. . . . .		Piney Creek Alluvium:	
Shale, tough, grayish		Shale. . . . .		Clay, sandy. . . . .	
Shale, tough, grayish		Rock, hard. . . . .		Broadway Alluvium:	
Shale, tough, grayish		Shale, brown. . . . .		Gravel. . . . .	
Shale, tough, grayish		Shale, blue. . . . .		Louviere Alluvium:	
Shale, tough, grayish		Dawson Formation (lower part):		Clay. . . . .	
Shale, tough, grayish		Sand, dirty [Middle		Gravel and rocks. . . . .	
Shale, tough, grayish		conglomerate, 74 to		Clay. . . . .	
Shale, tough, grayish		106 feet.] . . . . .		Gravel. . . . .	
Shale, tough, grayish		Shale, gray. . . . .		Dawson Formation:	
Shale, tough, grayish		Sandstone. . . . .		Clay. . . . .	
Shale, tough, grayish		Shale, soft, gray. . . . .		Shale. . . . .	
Shale, tough, grayish		Sandstone. . . . .		<b>CJ-68-12dgaa. Alt. 5,158 ft.</b>	
Shale, tough, grayish		Sand. . . . .		Broadway and Louviere Alluvium,	
Shale, tough, grayish		Shale, gray. . . . .		undifferentiated:	
Shale, tough, grayish		Sand. . . . .		Topsoil, sandy. . . . .	
Shale, tough, grayish		Sand. . . . .		Sand and gravel. . . . .	
Shale, tough, grayish		Shale, brown. . . . .		Dawson Formation (upper part):	
Shale, tough, grayish		Shale, hard, brown. . . . .		Clay, yellow. . . . .	
Shale, tough, grayish		Shale, blue. . . . .		Shale, blue. . . . .	
Shale, tough, grayish		Coal. . . . .		Shale, gray. . . . .	
Shale, tough, grayish		Shale. . . . .		Sandstone, gray. . . . .	
Shale, tough, grayish		Rock. . . . .		Shale, gray. . . . .	
Lower conglomerate:		Lower conglomerate:		Sandstone, gray, and	
Clay, whitish; contains		Sand. . . . .		gray shale. . . . .	
coarse gravel. . . . .		Shale. . . . .		Shale, gray. . . . .	
Clay, white, gravel,		Sandstone. . . . .		Shale, sandy, gray. . . . .	
and hard alternating		Shale, soft, gray. . . . .		Shale. . . . .	
layers of fine sand-		Sandstone. . . . .		Dawson Formation (lower part):	
stone. . . . .		Sand. . . . .		Sand, coal, and gray	
Shale, viscous, white		Shale, gray. . . . .		shale [Middle conglom-	
Sandstone, coarse. . . . .		Sand. . . . .		erate, 245 to 408	
Sandstone, fine, sugar-		Shale. . . . .		feet.] . . . . .	
like. . . . .		Coal. . . . .		13	258
Shale, white, and		Shale. . . . .			
alternating layers		Sand. . . . .			
of fine sandstone. . . . .		Shale. . . . .			
Sandstone, fine, white		Sand. . . . .			
<b>CJ-68-10dadc. Alt. 5,220 ft.</b>		Overburden. . . . .			
Dawson Formation (upper part):		Clay, blue, and shale			
Clay, blue, and shale		Sandstone. . . . .			
Clay and shale. . . . .		Dawson Formation (lower part):			
Sand and sandstone		[Middle conglomerate,			
150 to 264 feet.] . . . . .		7	157		



Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C1-68-12dcas.--Continued</b>		<b>C1-68-14acbc.--Continued</b>		<b>C1-68-17acda.--Continued</b>	
Shale, gray . . . . .	7 265	Shale, gray . . . . .	128 429	Shale, sandy . . . . .	7 107
Sand, fine . . . . .	17 282	Lower conglomerate:		Clay . . . . .	3 110
Shale, gray . . . . .	16 318	Sand, medium to fine . . . . .	24 453	Dawson Formation (lower part):	
Sand, fine, and gray . . . . .		Shale, gray . . . . .	10 463	Sand, coarse (Middle	
Shale . . . . .	17 335	Sand . . . . .	33 496	conglomerate, 310 to	
Shale, gray . . . . .	19 354	Sand, fine, and gray . . . . .		194 feet . . . . .	6 316
Sand, fine . . . . .	14 368	Shale . . . . .	79 575	Shale, sandy . . . . .	6 322
Shale, gray . . . . .	32 400	Shale, gray . . . . .	41 616	Sand, coarse, and sand-	
Sandstone, gray . . . . .	8 408			stone . . . . .	16 338
Shale, gray, and sand-		<b>C1-68-14bccd. Alt. 5,138 ft.</b>		Shale, sandy . . . . .	32 370
stone . . . . .	38 446	Post-Piney Creek alluvium:		Sandstone . . . . .	11 381
Shale, gray . . . . .	24 470	Overburden . . . . .	2 2	Flintrock . . . . .	4 385
Sandstone, gray . . . . .	6 476	Sand and gravel . . . . .	11 13	Clay . . . . .	5 390
Shale, gray . . . . .	11 487	Louviers Alluvium:		Sand, coarse . . . . .	4 394
Shale, blue . . . . .	9 496	Clay . . . . .	1.5 14.5	Shale . . . . .	128 522
Shale, gray . . . . .	17 513	Sand and gravel . . . . .	18.5 33	Lower conglomerate:	
Lower conglomerate:		<b>C1-68-15dbcb. Alt. 5,201.0 ft.</b>		Sandrock . . . . .	2 524
Sand, medium . . . . .	10 523	Eolian sand:		Clay, sandy, and coarse	
Shale, gray . . . . .	13 536	Sand, very fine to fine,		sand . . . . .	71 595
Sand . . . . .	22 558	loose, tan . . . . .	2.5 2.5	Sand . . . . .	25 620
Shale, gray, and sand	12 570	Sand, very fine to		Shale . . . . .	15 635
Sand . . . . .	27 597	medium, silty, calcar-		Sand and sandstone . . . . .	15 650
Shale, gray . . . . .	18 615	eous, dark-yellowish-		Shale . . . . .	15 685
Sand, medium . . . . .	12 627	orange . . . . .	1.5 4	Sand and sandstone . . . . .	25 710
Sand, fine, and gray		Caliche, silty, pale-		Shale . . . . .	22 732
Shale . . . . .	23 650	yellowish-brown, white-		Shale, sandy . . . . .	5 738
Shale, gray . . . . .	50 700	spotted and streaked		Laramie Formation:	
Lime, sandy . . . . .	1 701	Dawson Formation (upper part):		Shale . . . . .	72 810
Shale, sandy, gray . . . . .	13 714	Shale, silty, sandy,			
Sand, medium . . . . .	12 726	weathered calcareous,		<b>C1-68-17adba. Alt. 5,341 ft.</b>	
Laramie Formation:		grayish-yellow and		Younger loess:	
Shale, gray . . . . .	115 841	dusky-yellow; contains		Topsoil . . . . .	5 5
Shale, brown . . . . .	4 845	montmorillonite; less		Clay, sandy . . . . .	10 15
Shale, gray . . . . .	25 870	sand below 12.5 feet	10.5 17.5	Dawson Formation (upper part):	
Shale, brown, and coal		Shale, clay, noncal-		Clay and shale . . . . .	30 45
blossom . . . . .	13 883	careous, pale-olive	2.5 20	Shale; contains streaks	
Shale, gray . . . . .	47 930	Shale, silty, dusky-		of sandstone . . . . .	55 100
Lime, sandy . . . . .	2 932	yellow, noncalcareous;			
Shale, gray . . . . .	218 1,150	contains montmorillo-		<b>C1-68-17adcc. Alt. 5,350.0 ft.</b>	
Coal and gray shale . . . . .	37 1,187	nite . . . . .	2.5 22.5	Younger loess:	
Sand, fine . . . . .	10 1,197	<b>C1-68-15ddbc. Alt. 5,146.5 ft.</b>		Soil . . . . .	5 5
Coal and gray shale . . . . .	21 1,218	Fill . . . . .	6 6	Slocum Alluvium:	
Sand, fine, and gray		Post-Piney Creek alluvium:		Sand . . . . .	30 35
Shale . . . . .	21 1,239	Gravelly, medium to coarse,		Dawson Formation (upper part):	
Coal and gray shale . . . . .	12 1,251	arkosic, subrounded to		Shale . . . . .	10 45
Sand, fine [8 sandstone,		rounded, dirty, dry	4 10	Sand . . . . .	5 50
1,251 to 1,325 feet.]	74 1,325	Louviers Alluvium:		Shale . . . . .	25 75
Shale, sandy, gray . . . . .	57 1,382	Gravel, fine to coarse,			
A sandstone:		arkosic, subangular to		<b>C1-68-23acca. Alt. 5,186.0 ft.</b>	
Sand, fine, coal, and		subrounded, loose,		Broadway Alluvium:	
gray shale . . . . .	12 1,394	clean; contains		Topsoil, sandy, black,	
Shale, gray . . . . .	34 1,428	cobbles . . . . .	2.5 12.5	and fill . . . . .	3.5 3.5
Sand, fine, and gray		Gravel, medium to very		Gravel, very fine to	
Shale . . . . .	14 1,442	coarse, arkosic, sub-		coarse, about 30 per-	
Shale, gray . . . . .	14 1,456	rounded to well-		cent coarse, sub-	
Sand, fine, and gray		rounded, loose, clean;		angular to subrounded,	
Shale . . . . .	22 1,478	contains cobbles . . . . .	1.5 14	arkosic, loose, poorly	
Shale, sandy, gray . . . . .	19 1,497	Gravel, very fine to		sorted; contains	
Fox Hills Sandstone:		medium, and very coarse		scattered cobbles . . . . .	6.5 10
Milliken Sandstone Member:		sand, fairly well-		Gravel, very fine to	
Sandstone, hard, white	3 1,500	sorted . . . . .	3.5 17.5	fine, subangular, ar-	
Sand, fine, and gray		Gravel, very fine to		kosic, loose, and	
Shale . . . . .	102 1,602	medium, arkosic, sub-		about 50 percent	
Shale, gray . . . . .	11 1,613	angular to subrounded;		medium to very coarse	
Sand, fine . . . . .	5 1,618	contains cobbles . . . . .	7.5 25	sand . . . . .	2.5 12.5
Shale, gray . . . . .	8 1,626	Gravel, fine, well-sorted,		Louviers Alluvium:	
<b>C1-68-13abbb. Alt. 5,165 ft.</b>		subangular, arkosic	5 30	Sand, very fine to fine,	
Broadway and Louviers Alluvium,		Gravel, medium to		silty, calcareous,	
undifferentiated:		coarse, subangular to		arkosic, dusky-	
Gravel . . . . .	28 28	subrounded, arkosic,		yellow . . . . .	3.5 16
Louviers Alluvium:		loose . . . . .	2.5 12.5	Gravel, very fine to	
Shale . . . . .	7 35	Dawson Formation (upper part):		fine, arkosic, sub-	
Sand; contains streak		Shale, clay, noncalcar-		angular, and very fine	
of clay . . . . .	5 40	eous, light-olive-gray;		to very coarse sand;	
Clay; contains rock . . . . .	2 42	contains montmorillo-		contains cobbles . . . . .	11.5 27.5
Gravel . . . . .	3 45	nite . . . . .	5 17.5	Sand, very coarse, sub-	
Dawson Formation:		<b>C1-68-16dcac. Alt. 5,242.0 ft.</b>		angular to subrounded,	
Shale, brown . . . . .	2 47	Piney Creek Alluvium:		arkosic, and about 5	
Shale, blue, at 47 feet		Topsoil . . . . .	2 2	percent very fine to	
<b>C1-68-14acbc. Alt. 5,135 ft.</b>		Dawson Formation (upper part):		medium subangular to	
Post-Piney Creek alluvium:		Shale and clay . . . . .	250 260	well-rounded gravel . . . . .	2.5 30
Soil . . . . .	2 2	Dawson Formation (lower part):		Gravel, very fine to	
Clay, sandy, yellow . . . . .	5 7	Sand and sandstone:		fine, dirty, subangular,	
Louviers Alluvium:		contains streaks of		arkosic, and very fine	
Sand and gravel . . . . .	26 33	shale (Middle conglom-		to very coarse sand;	
Dawson Formation (upper part):		erate, 260 to 348		contains cobbles . . . . .	7.5 37.5
Shale, blue . . . . .	8 41	feet.) . . . . .	98 148	Gravel, very fine to	
Shale, gray . . . . .	25 66	Shale and clay . . . . .	42 190	fine, subangular to	
Sandstone, gray . . . . .	5 71	Shale; contains streaks		subrounded, arkosic,	
Sand, fine . . . . .	5 76	of sandstone . . . . .	98 488	and about 30 percent	
Shale, gray . . . . .	51 127	Lower conglomerate:		very fine to very	
Dawson Formation (lower part):		Sandstone; contains		coarse sand . . . . .	6.5 44
Sand, fine, and gray		streaks of shale . . . . .	144 632	Dawson Formation (upper part):	
Shale (Middle conglom-		Shale . . . . .	27 659	Shale, silty, olive-gray,	
erate, 127 to 301				noncalcareous; contains	
feet.) . . . . .	71 199	<b>C1-68-17acda. Alt. 5,355 ft.</b>		montmorillonite . . . . .	1.5 47.5
Shale, gray . . . . .	10 229	Overburden . . . . .	40 40		
Sand, fine . . . . .	8 237	Dawson Formation (upper part):			
Shale, gray . . . . .	41 278	Clay, blue, and shale	260 300		
Sand, medium to fine . . . . .	23 301				

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>CJ-68-23bbba. Alt. 5,144 ft.</b>					
Fill. . . . .	9				
Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated: Sand, gravel (water). . . . .	22				
Dawson Formation (upper part): Shale, hard, blue, and green sandy shale . . . . .	68				
Sandrock, hard, gray . . . . .	6				
Shales, bluish, hard and soft strata . . . . .	74				
Shale, green, caves . . . . .	11				
Dawson Formation (lower part): Sandrock (Middle conglomerate, 190 to 180 feet). . . . .	6				
Shale, green, caving . . . . .	5				
Shale, gray, sandy . . . . .	64				
Sandrock, gray (water) . . . . .	20				
Shale, sticky, bluish . . . . .	34				
Sandrock (water) . . . . .	5				
Shale, greenish and gray . . . . .	11				
Sandrock (water) . . . . .	5				
Shale, sticky, bluish and gray . . . . .	10				
Sandrock (water) . . . . .	10				
Shale, sticky, greenish . . . . .	20				
Shale, alternating hard and soft layers, caves . . . . .	12				
Lower conglomerate: Sand and clay (water) . . . . .	8				
Shale, sticky, greenish . . . . .	40				
Sand and white clay, alternating layers . . . . .	23				
Shale, caves, bluish-brown and green . . . . .	67				
Sandrock; contains intervening layer of black shale (water) . . . . .	19				
Shale, black and brown; contains intervening layer of sandstone . . . . .	17				
Laramie Formation: Shale, caves, greenish and black . . . . .	49				
<b>CJ-68-23dabb. Alt. 5,193.0 ft.</b>					
Piney Creek Alluvium: Sand and loam, brown . . . . .	3				
Broadway Alluvium: Sand, very fine to very coarse, subangular, arkosic, loose, and about 20 percent arkosic subangular to subrounded very fine to fine gravel . . . . .	4.5				
Gravel, coarse to very coarse, arkosic, subangular to subrounded, and about 20 percent very coarse sand . . . . .	2.5				
Gravel, very fine to fine, and medium to very coarse sand . . . . .	1				
Louviers Alluvium: Gravel, coarse, subrounded to rounded, arkosic, and about 10 percent very fine to very coarse sand; contains cobbles from 13.0 to 15.5 feet . . . . .	4.5				
Gravel, very fine to medium, subangular to subrounded, loose, clean; contains some cobbles . . . . .	4.5				
Sand, very fine to very coarse, subangular to subrounded, slightly silty, and about 50 percent very fine to fine gravel . . . . .	2.5				
Gravel, very fine to fine, subangular to subrounded, arkosic, and coarse to very coarse sand . . . . .	4.5				
Cobbles, well-rounded, and loose arkosic subrounded to rounded very fine to coarse gravel . . . . .	7				
Gravel, fine, fairly well-sorted, arkosic, subrounded to rounded cobbles and fine to coarse sand . . . . .	4.5				
<b>CJ-68-23dabb--Continued</b>					
Dawson Formation (upper part): Shale, silty, noncalcareous, pale-olive; contains montmorillonite . . . . .	5.5				
<b>CJ-68-24bbdd. Alt. 5,189 ft.</b>					
Younger loess: Overburden . . . . .	3				
Silt, sandy, dry . . . . .	10				
Broadway Alluvium: Sand, fine to medium . . . . .	10				
Louviers Alluvium: Clay, sandy . . . . .	2				
Gravel and cobbles . . . . .	3				
Clay, sandy . . . . .	4				
Clay, tight . . . . .	4				
Gravel . . . . .	11				
<b>CJ-68-27dadd. Alt. 5,205 ft.</b>					
Broadway Alluvium: Soil, sandy . . . . .	4				
Sand, fine . . . . .	19				
Louviers Alluvium: Sand, coarse, and fine gravel . . . . .	29				
Dawson Formation (upper part): Clay and shale . . . . .	82				
Sandstone, gray . . . . .	6				
Clay and shale . . . . .	18				
Dawson Formation (lower part): Sand (Middle conglomerate, 178 to 430 feet). . . . .	4				
Clay . . . . .	18				
Sandstone, gray . . . . .	13				
Clay . . . . .	85				
Clay and hard shale . . . . .	15				
Clay . . . . .	54				
Sandstone, hard . . . . .	15				
Sandstone . . . . .	2				
Sandstone, hard . . . . .	41				
Sandstone . . . . .	5				
Clay and rock, alternating . . . . .	100				
Lower conglomerate: Sandstone . . . . .	4				
Quicksand . . . . .	207				
Shale . . . . .	20				
Clay, sandy . . . . .	24				
Clay . . . . .	15				
<b>CJ-68-31acaa. Alt. 5,324.5 ft.</b>					
Younger loess: Topsoil . . . . .	8				
Clay, yellow . . . . .	10				
Slocum Alluvium: Sand (water-bearing) . . . . .	7				
Clay, sandy (no water) . . . . .	15				
Dawson Formation (upper part): Clay, blue, and sand . . . . .	10				
Sandstone, black . . . . .	5				
Shale . . . . .	3				
<b>CJ-68-33bccc. Alt. 5,185 ft.</b>					
Post-Piney Creek alluvium: Soil, surface . . . . .	6				
Louviers Alluvium: Sand and gravel . . . . .	9				
Dawson Formation (upper part): Shale, brown . . . . .	10				
Shale, blue . . . . .	12				
Sand, black . . . . .	5				
Shale, blue . . . . .	12				
Dawson Formation (lower part): Sandstone (water) [Middle conglomerate, 94 to 276 feet]. . . . .	11				
Shale . . . . .	54				
Sandstone (water) . . . . .	10				
Shale . . . . .	14				
Limestone . . . . .	7				
Shale, blue . . . . .	26				
Sandstone . . . . .	12				
Shale . . . . .	18				
Sandstone (water) . . . . .	21				
Shale . . . . .	10				
Limestone, sandy . . . . .	10				
Sandstone . . . . .	9				
Limestone . . . . .	14				
Shale . . . . .	15				
Sandstone . . . . .	10				
Slate, blue, and clay . . . . .	70				
Sandstone . . . . .	35				
Shale, sandy . . . . .	11				
Sandstone . . . . .	15				
Shale, gray . . . . .	57				
Lower conglomerate: Sand, gray (water) . . . . .	21				
Shale, gray . . . . .	27				
Sand, gray (water) . . . . .	10				
Sand and shale, alternating . . . . .	11				
<b>CJ-68-33bccc--Continued</b>					
Shale, muddy, gray . . . . .	25				
Sand and shale, hard, gray . . . . .	10				
Sand, hard, gray . . . . .	5				
Sand, medium-gray (water) . . . . .	8				
Shale, muddy, gray . . . . .	16				
Shale, blue . . . . .	25				
<b>CJ-68-33cadb. Alt. 5,189 ft.</b>					
Fill . . . . .	3.5				
Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated: Sand and gravel . . . . .	14.5				
Louviers Alluvium: Gravel and boulders . . . . .	2				
Sand, gravel, and boulders . . . . .	18				
Boulders . . . . .	2				
<b>CJ-68-34cabc. Alt. 5,222 ft.</b>					
Broadway and Louviers Alluvium, undifferentiated: Boulders and gravel . . . . .	14				
Dawson Formation (upper part): Clay, blue . . . . .	56				
Sandrock . . . . .	6				
Clay, blue . . . . .	14				
Sandrock . . . . .	5				
Shale . . . . .	11				
Clay, tough . . . . .	2				
Shale . . . . .	8				
Clay, blue . . . . .	12				
Sandrock . . . . .	8				
Clay, blue . . . . .	61				
Sandrock, hard . . . . .	2				
Clay, tough . . . . .	31				
Dawson Formation (lower part): Rock (water) [Middle conglomerate, 250 to 428 feet]. . . . .	4				
Clay, blue . . . . .	12				
Sandrock . . . . .	2				
Rock (water) . . . . .	15				
Sandrock . . . . .	8				
Clay, blue . . . . .	51				
Sandrock . . . . .	6				
Clay, blue . . . . .	22				
Sandrock . . . . .	3				
Clay . . . . .	1				
Sandstone . . . . .	1				
Clay and rock, alternating (water) . . . . .	53				
Clay, blue . . . . .	50				
Shale . . . . .	12				
Lower conglomerate: Sandstone . . . . .	1				
Shale . . . . .	21				
Sandstone, hard . . . . .	9				
Shale . . . . .	19				
Sandstone . . . . .	12				
Rock (water) . . . . .	16				
Clay, blue . . . . .	17				
Sandstone . . . . .	4				
Rock (water) . . . . .	5				
Shale . . . . .	16				
<b>CJ-68-34bccc. Alt. 5,212 ft.</b>					
Roadway . . . . .	1				
Broadway Alluvium: Sand, medium to coarse, and gravel as large as 3/4-inch in diameter, slightly moist . . . . .	3				
Silt, sandy, slightly moist . . . . .	4.5				
Clay, silty, plastic, slightly moist . . . . .	1.5				
Clay, as above, and fine to medium sand . . . . .	1				
Sand, fine to medium, slightly moist . . . . .	2				
Sand, medium to coarse, and gravel as large as 3/4-inch in diameter, slightly moist . . . . .	3.5				
Sand, medium to coarse, gravel, and cobbles, slightly moist . . . . .	5				
Louviers Alluvium: Sand, very clayey, coarse, and gravel as large as 3/4-inch in diameter, slightly moist . . . . .	3				
Sand, coarse, and gravel as large as 1-inch in diameter, wet . . . . .	11				
Clay, very sandy, moist . . . . .	2				
Sand, coarse, gravel, cobbles, and boulders as large as 16-inches in diameter . . . . .	6.5				

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>CJ-68-14bccc</b> ---Continued		<b>CJ-68-14cddd</b> ---Continued		<b>CJ-68-14cddd</b> ---Continued	
Dawson Formation (upper part):		Clay, gray, and some		Shale, sandy, gray	10 1.420
Shale, carbonaceous, very		gravel	10 230	Shale, sandy, gray:	
slightly moist, blue to		Clay, gray	50 280	contains specks of	
gray	10 54	Dawson Formation (lower part):		lignite	10 1.430
<b>CJ-68-14cbcb</b> . Alt. 5,216 ft.		Sand, fine to medium, and		A sandstone:	
Overburden	38 38	gray clay [Middle con-		Sand, hard, white, sandy	
Dawson Formation (upper part):		glomerate, 258 to 440		shale, and coal	10 1.440
Clay and shale	53 101	feet.]	10 290	Clay, gray	20 1.460
Sandrock	19 120	Sand, fine to medium,		Sand, salt and pepper,	
Clay and shale	4 124	gray clay, and some		and some clay	40 1.500
Sandrock	17 141	gravel	10 300	Clay, gray, and some	
Clay and shale	11 152	Clay, gray, and some		sand	20 1.520
Shale	41 193	gravel	10 310	Fox Hills Sandstone:	
Clay and shale	26 219	Clay, gray, and some		Milliken Sandstone Member:	
Dawson Formation (lower part):		fine sand	20 330	Sand, salt and pepper	60 1.580
Sand (water) [Middle		Clay, gray	50 380	Clay, gray	10 1.590
conglomerate, 219 to		Sand, fine, white, and		Transition zone:	
441 feet.]	12 231	gray clay	20 400	Shale, sandy, gray	10 1.600
Clay and shale	39 270	Sand, medium to coarse	10 410	Shale, sandy, gray, and	
Shale	40 310	Sand, coarse, and		gray clay	15 1.615
Sand (water)	20 330	gravel	30 440	<b>CJ-68-14cddb</b> . Alt. 5,221.9 ft.	
Sandrock, hard	4 334	Clay, gray	10 450	Broadway Alluvium:	
Clay and shale	22 356	Sand, fine, some gravel,		Clay, silty, brown, and	
Sand (water)	30 386	and gray clay	10 460	sand	7.5 7.5
Clay and shale	5 391	Sand, fine, white	40 500	Sand, fine to coarse,	
Sandrock	4 395	Sand, fine, and gray		brown, and some gravel	6 13.5
Sand (water)	46 441	clay	10 510	Louviers Alluvium:	
Shale and clay	88 529	Clay, gray	10 520	Clay, silty, brown, and	
Lower conglomerate:		Sand, coarse, silty	20 540	silty fine sand	9.5 23
Sandrock	4 533	Clay, gray, and some		Sand, fine to coarse,	
Clay and shale	4 537	gravel	20 560	brown, and gravel	16 39
Sand (water)	3 540	Lower conglomerate:		Dawson Formation (upper part):	
Clay and shale	43 583	Sand, coarse	50 610	Clay, shaly, brown	3 42
Sand (water)	37 620	Sand, coarse, and some		Shale, weathered	4 46
Shale	28 648	gravel	20 630	<b>CJ-68-15acbb</b> . Alt. 5,270 ft.	
Sand (water)	61 709	Clay, gray, and coarse		Eolian sand:	
Clay and shale	6 715	sand	10 660	Fill	2 2
Sand (water)	13 728	gravel	10 670	Topsoil	2 4
Shale	21.5 749.5	Clay, gray, and sand	50 720	Louviers Alluvium:	
<b>CJ-68-14cdab</b> . Alt. 5,231.4 ft.		Sand, medium, and tan		Clay, sandy, brown	28 32
Broadway Alluvium:		clay	10 730	Gravel	4 36
Clay, silty, brown, and		Sand, medium to coarse	10 740	Sand	15 51
sand	5.5 5.5	Sand, medium to coarse,		Gravel	18 69
Sand, fine to coarse,		and tan clay	10 750	Dawson Formation (upper part):	
and some gravel	7.5 13	Clay, gray	10 760	Sandstone	6 75
Louviers Alluvium:		Clay, gray, and sand	10 770	Clay, brown	16 91
Clay, silty, brown,		Clay, gray	10 780	Shale, blue	7 98
mixed with fine sand	10 23	Sand, medium	40 820	Sandstone, gray	11 109
Sand, fine to coarse,		Sand, medium, and gray		Shale, brown	5 114
and gravel	16 39	clay	10 830	Sandstone, gray, and	
Dawson Formation (upper part):		Sand, fine, and tan		gray shale	106 220
Shale, weathered	1.5 40.5	and gray clay	20 850	Shale, gray	25 245
<b>CJ-68-14cdad</b> . Alt. 5,234 ft.		Laramie Formation:		Sandstone, gray, and	
Broadway Alluvium:		Clay, gray, and fine		gray shale	15 260
Sand, gravel, and cinder		sand	30 880	Shale, gray	92 352
fill	3 3	Clay, gray, and some		Sand, fine, and gray	
Sand, fine to coarse,		gravel	10 890	shale	17 169
and some gravel	10.5 13.5	Clay, gray	10 900	Sandstone, gray	12 181
Louviers Alluvium:		Clay, gray, and some		Shale, green	7 188
Sand, fine, brown,		sand	20 920	Shale, sandy, gray	14 402
contains trace of		Clay, gray, contains		Shale, gray	42 444
clay	2 13.7	specks of lignite	10 930	Shale, sandy, gray	13 457
Sand, fine to coarse,		Sand, gray, and gray		Dawson Formation (lower part):	
and gravel	25.8 39.5	clay	40 1,020	Sand and gray shale	
Clay, silty, brown:		Concretion, gray clay,		[Middle conglomerate,	
contains thin beds		and some sand	10 1,030	457 to 599 feet.]	28 485
of silty fine sand	7 46.5	Clay, gray, and carbon-		Shale, gray	24 500
Sand, fine, silty,		aceous shale	10 1,040	Sand, fine, and gray	
brown: contains trace		Clay, gray	40 1,080	shale	57 566
of silty clay	5.5 52	Shale, sandy, gray	10 1,090	Sand, coarse, and gray	
Sand, medium to coarse,		Clay, gray	40 1,130	shale	33 599
and gravel	9 61	Clay, gray, and coal	10 1,140	Shale, gray, and sand-	
Dawson Formation (upper part):		Shale, sandy, dark-		stone	22 621
Shale, weathered	1.5 62.5	gray	70 1,210	Shale, gray	24 645
Shale and sandstone, at		Clay, gray: contains		Shale, sandy, gray	9 654
62.5 feet		specks of lignite	30 1,240	Shale, brown	17 671
<b>CJ-68-14cddd</b> . Alt. 5,237 ft.		Clay, gray: contains		Shale, gray	14 685
No sample	67 67	carbonaceous shale	10 1,250	Lower conglomerate:	
Dawson Formation (upper part):		Clay, gray, and gray		Sandstone, gray, and	
Clay, gray-green	13 90	sandy shale; some		shale	12 697
Clay, gray-green, and		lignite	10 1,260	Shale, gray	15 712
some gravel	10 90	Sand, fine, salt and		Sand, fine, and gray	
Sand, coarse, and some		pepper, and gray	10 1,270	shale	54 766
gray-green clay	10 100	clay		Sand, coarse, and gray	
Clay, gray-green, and		Sand, fine, salt and		shale	22 788
some coarse sand	10 110	pepper, and some	10 1,280	Shale, gray	28 816
Clay, gray-green and		coal		<b>CJ-68-15acdc</b> . Alt. 5,285 ft.	
brown	20 130	Sand, fine, salt and		Eolian sand:	
Clay, gray-green, and		pepper [8 sandstone,		Clay, yellow	56 56
some gravel	10 140	1,280 to 1,379 feet.]	40 1,320	Dawson Formation (upper part):	
Clay, sticky, gray-		Sand, fine, salt and		Shale, blue	153 209
green	10 150	pepper, and some coal	10 1,330	Shale, gray	21 230
Shale, sandy, gray-		Sand, fine, salt and		Shale, blue	45 275
green	50 200	pepper	10 1,350	Shale, sandy, gray	5 280
Clay, gray, and some		Sand, fine, salt and		Shale, blue	18 298
fine sand	10 210	pepper, and some gray		Shale, greenish	42 340
Clay, gray, and some		clay	10 1,360	Shale, black	16 356
coarse sand	10 220	Clay, gray	40 1,400	Shale, greenish	42 398
		Shale, carbonaceous	10 1,410		

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth		
<b>CI-68-15agdc.--Continued</b>							
Dawson Formation (lower part):							
Sand, gray (Middle con- glomerate, 198 to 544 feet.)	12	410					
Shale, siliceous.	69	479					
Shale, hard, sandy, light-gray.	31	510					
Shale, arenaceous, black.	22	532					
Sandstone, white.	12	544					
Shale, soft, disinte- grating, blue.	26	570					
Shale, hard, jointed, dark-gray.	70	640					
Shale, hard, slate-like, black; contains streaks of light-gray sand and beds of soft blue shale.	28	668					
Lower conglomerate:							
Sandstone, soft, gray.	4	672					
Shale, hard, black.	28	700					
Shale, arenaceous, dark-gray.	28	728					
Conglomerate, coarse gravel, sand, and clay.	14	742					
Clay, soft, whitish.	12	754					
Shale, hard, arenaceous, bluish.	46	800					
<b>CI-68-15bccc. Alt. 5,257 ft.</b>							
Eolian sand:							
Soil.	6	6					
Loam, sandy.	20	26					
Louviers Alluvium:							
Gravel and boulders.	22	48					
Dawson Formation (upper part):							
Clay, yellow.	5	53					
Sand and blue sandrock.	9	62					
Clay and shale.	80	142					
Coal smut.	2	144					
Clay and shale.	47	191					
Shale, blue.	12	203					
Clay and shale.	100	303					
Sandrock.	2	305					
Clay and shale.	8	313					
Sand and rock.	4	317					
Clay and shale.	5	322					
Dawson Formation (lower part):							
Sand (water) (Middle conglom- er- ate, 322 to 447 feet.)	7	329					
Clay and shale.	4	333					
Sand (water).	7	340					
Sandrock.	23	363					
Sand (water).	42	405					
Clay and shale.	16	421					
Sandrock.	5	426					
Clay and shale.	4	430					
Sandrock and clay.	5	435					
Sandrock.	12	447					
Clay and shale.	106	553					
Lower conglomerate:							
Sand (water).	3	556					
Clay and shale.	9	565					
Sandrock.	6	571					
Sand (water).	9	580					
Sandrock.	5	585					
Clay and shale.	23	608					
Sand (water).	14	652					
Clay and shale.	48	700					
Sand (water).	41	741					
Clay and shale.	24	765					
<b>CI-68-16abba. Alt. 5,288.0 ft.</b>							
Younger loess:							
Silt, sandy, clayey, micaceous, calcareous, grayish-orange; becomes pale-yellowish-brown at 7.0 feet.	9	9					
Dawson Formation (upper part):							
Shale, very hard, very sandy, calcareous, pale-yellowish-brown; contains medium to coarse sand grains.	1.5	12.5					
<b>CI-68-16bbbb. Alt. 5,241.0 ft.</b>							
Piney Creek Alluvium:							
Topsoil, clayey.	2	2					
Silt, very calcareous, pale-yellowish-brown.	8	10					
Silt, sandy, very cal- careous, grayish- orange.	16	26					
Dawson Formation (upper and lower parts, undifferentiated):							
Shale, silty, dark- yellowish-brown; con- tains montmorillonite.	4	30					
<b>CI-68-16dbdd. Alt. 5,271.0 ft.</b>							
Piney Creek Alluvium:							
Clay, sandy, damp, plastic, light-brown.	2.5	2.5					
Silt, slightly sandy, micaceous.	7.5	10					
Silt, very sandy, very calcareous, dark- yellowish-orange; con- tains abundant white grains of calcareous material.	4	14					
Dawson Formation (upper part):							
Shale, silty, very finely micaceous, dark- yellowish-orange; con- tains montmorillonite.	3.5	17.5					
<b>CI-68-16dccc. Alt. 5,418 ft.</b>							
Dawson Formation (upper part):							
Soil.	1	1					
Clay, sandy, yellow.	76	77					
Shale, blue.	4	81					
Shale, gray.	22	103					
Dawson Formation (lower part):							
Sand (Middle conglomerate, 123 to 260 feet.)	25	128					
Shale, gray.	18	146					
Coal.	2	148					
Shale, sandy, gray.	9	157					
Shale, gray.	51	208					
Sand and gray shale.	18	226					
Shale, gray.	4	230					
Lime, sandy.	1	231					
Shale, gray.	18	249					
Sand and gray shale.	11	260					
Shale, gray.	49	309					
Sandstone, gray.	19	328					
Shale, gray.	7	335					
Shale, gray, and sand- stone.	28	363					
Lime, sandy.	2	365					
Shale, sandy, gray.	13	380					
Lime, sandy.	4	384					
Lower conglomerate:							
Sand.	51	435					
Shale, gray.	35	470					
Sand, fine.	15	485					
Shale, gray.	13	498					
Sand, fine.	15	511					
Shale, gray.	45	558					
Sand, fine.	57	615					
Sand, fine; contains gray shale.	70	685					
Shale, gray.	11	696					
<b>CI-69-13bbbb. Alt. 5,536.4 ft.</b>							
Sioux Alluvium:							
Topsoil.	3	3					
Clay.	12	15					
Sand.	5	20					
Dawson Formation (upper and lower parts, undifferentiated):							
Hardpan.	8	28					
Clay and streaks of gravel.	21	49					
Shale, blue.	3	52					
<b>CI-69-6cbab. Alt. 5,545 ft.</b>							
Broadway Alluvium:							
Soil.	3	3					
Gravel, coarse, water- bearing; contains quartz, basalt, gneiss, and schist.	7	10					
Dawson Formation (upper part):							
Shale, clayey, yellow.	5	15					
Dawson Formation (lower part):							
Sand, very fine to very coarse, water-bearing, and a little fine gravel (Middle conglom- erate, 15 to 124 feet.)	5	20					
Shale, clayey, yellow.	5	25					
Sand, very fine to very coarse, chiefly quartz, water-bearing, sub- rounded to rounded, and a little angular to subangular fine gravel.	5	30					
Gravel, very fine to fine, mostly angular, and coarse sand; con- tains quartz, ortho- clase, schist, gneiss, quartzite, and basalt.	20	50					
Shale, clayey, light- greenish-gray; contains a little rounded medium sand.	25	75					
<b>CI-69-6cbab.--Continued</b>							
Sand, fine to coarse, angular to subrounded; contains a little gray shale.						5	80
Shale, clayey, gray.						25	105
Sand, very fine to very coarse, and very fine gravel; cemented at top.						19	124
Shale, gray and brownish, and a thin bed of hard shaly sandstone.						6	130
Shale, clayey, gray, and a little sand and sand- stone.						10	160
Sand, fine to coarse, water-bearing, angular; about 50 percent feldspar and 50 per- cent quartz; contains gray shale.						15	175
Shale, gray and brownish- gray; contains a few particles of coal and brown quartzite from 190 to 195 feet.						20	195
Shale, gray and brownish- gray, slightly sandy; contains partings of carbonaceous material, a little coal, and very fine to coarse sand.						15	210
Lower conglomerate:							
Sand, very fine, silty, subangular to rounded, gray, and about 20 percent gray carbon- aceous clayey shale.						10	220
Sand, very fine to medium, water-bearing, brownish-gray; contains magnetite and a little coal.						20	240
Shale, clayey, sandy, brownish-gray.						10	250
Shale, slightly sandy, light-gray and brownish-gray.						20	270
Shale, clayey, light- gray and gray.						10	280
Shale, slightly sandy, light-gray to gray; contains fragments of coal between 280 and 290 feet.						20	300
Shale, very clayey, light-gray.						10	310
Sand, very fine to fine, angular to subrounded, brownish-gray and gray; contains a little carbonaceous shale.						10	320
Shale, sandy, carbonaceous, brownish-gray light- gray and gray; con- tains very fine to coarse arkosic sand, very thin coal seams between 338 and 340 feet, and limonite between 340 and 345 feet.						15	355
Sand, very fine, silty, angular to subrounded, brownish-gray.						5	360
Shale, slightly sandy, carbonaceous and lim- onitic, gray to dark- gray; contains very fine angular sand.						20	380
Sand, very micaceous, very fine to coarse, gray to dark-gray and brownish-gray; contains much pyrite from 390 to 400 feet.						20	400
Laramie Formation:							
Shale, clayey, sandy, gray.						10	410
Sand, very fine to medium, angular to subangular, and gray clayey shale.						10	420
Shale, carbonaceous, sandy, clayey, dark- gray light-gray and brownish-gray; contains coal between 510 and 520 feet and very fine to medium sand.						115	535



Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>CJ-69-17dbda. --Continued</b>		<b>CJ-69-14bada. --Continued</b>		<b>CJ-69-15addd2. --Continued</b>	
Shale, gray . . . . .	19 120	Shale, gray . . . . .	9 177	Clay, gray . . . . .	25 770
Sandstone, gray . . . . .	2 122	Sandstone, gray . . . . .	5 182	Shale, sandy, tan; con- tains dark-gray clay . . . . .	20 790
Shale, gray . . . . .	46 168	Shale, gray . . . . .	77 259	Clay, gray . . . . .	10 820
Sandstone, hard . . . . .	1 169	Lime, sandy . . . . .	4 263	Clay, gray and tan . . . . .	10 830
Shale, gray . . . . .	19 188	Lower conglomerate: . . . . .		Clay, gray . . . . .	75 905
Sandstone, gray . . . . .	12 200	Sand and gray shale . . . . .	69 332	Clay, gray and tan . . . . .	15 920
Shale, gray . . . . .	29 229	Shale, gray . . . . .	5 338	Clay, gray . . . . .	5 925
Sandstone, gray . . . . .	13 242	Sand . . . . .	31 419	Clay, gray; contains carbonaceous shale . . . . .	15 940
Shale, sandy, gray . . . . .	15 257	Shale, gray . . . . .	8 427	Shale, sandy, gray; contains gray and tan clay . . . . .	10 950
Sandstone, gray . . . . .	4 261	Sand and gray shale . . . . .	55 482	Clay, gray . . . . .	25 975
Lower conglomerate: . . . . .		Shale, gray . . . . .	10 492	Clay, gray, and carbon- aceous shale . . . . .	5 980
Sand, fine . . . . .	4 265	Sand . . . . .	9 501	Clay, gray . . . . .	15 995
Shale, gray . . . . .	12 277	Laramie Formation: . . . . .		Shale, carbonaceous . . . . .	10 1,005
Shale, gray; contains sandstone . . . . .	8 285	Lime, sandy . . . . .	2 503	Shale, sandy, gray . . . . .	5 1,010
Sand . . . . .	34 319	Shale, gray; contains sand . . . . .	77 580	Shale, gray . . . . .	5 1,015
Shale, gray . . . . .	15 334	Shale, gray . . . . .	36 616	Clay, gray and tan . . . . .	10 1,025
Sand and gray shale . . . . .	5 369	<b>CJ-69-15addd2. Alt. 5,124 ft.</b>		Shale, sandy, gray . . . . .	15 1,040
Sand, gray . . . . .	5 374	No sample . . . . .	30 10	Clay, dark-gray . . . . .	5 1,045
Sand . . . . .	14 388	Dawson Formation (upper part): . . . . .		Shale, sandy, gray . . . . .	15 1,060
Shale, gray . . . . .	5 393	Sand, fine, gray, ashy . . . . .	5 35	Shale, sandy, gray; contains white fine sand . . . . .	5 1,065
Sand; contains gray shale . . . . .	58 451	Clay, gray . . . . .	15 50	Clay, sticky, gray . . . . .	10 1,075
Shale, gray . . . . .	12 463	Clay, slightly sandy, gray . . . . .	10 60	Shale, sandy, gray; con- tains white fine sand . . . . .	5 1,080
Sand and gray shale . . . . .	27 490	Clay, gray . . . . .	5 65	Clay, gray . . . . .	5 1,085
Shale, gray . . . . .	12 502	Dawson Formation (lower part): . . . . .		Shale, sandy; contains carbonaceous shale . . . . .	15 1,100
Sand and gray shale . . . . .	6 508	Sand, white, and thin beds of gray shale (Middle conglomerate, 65 to 195 feet.) . . . . .	25 90	Clay, gray . . . . .	25 1,125
Shale, gray . . . . .	68 516	Sand, fine, gray . . . . .	5 95	Clay, gray; contains sandy shale . . . . .	15 1,140
Shale, gray; contains fine sand . . . . .	22 598	Sand, coarse; contains dark-gray clay . . . . .	50 145	Clay, gray; contains carbonaceous shale . . . . .	5 1,145
Shale, gray . . . . .	18 616	Gravel . . . . .	30 175	Clay, gray . . . . .	5 1,150
<b>CJ-69-12dcda. Alt. 5,265.8 ft.</b>		Sand, coarse; contains gray clay . . . . .	10 185	Sand, fine, tan (B sand- stone, 1,150 to 1,210 feet.) . . . . .	5 1,155
Post-Piney Creek alluvium: Topsoil . . . . .	4 4	Gravel . . . . .	10 195	Sand, salt and pepper . . . . .	35 1,190
Louviers Alluvium: Rocks, large, and fine sand . . . . .	16 20	Clay, gray; contains some gravel . . . . .	5 200	Shale, sandy, gray . . . . .	10 1,200
Dawson Formation: Shale, blue . . . . .	1 21	Clay, gray . . . . .	20 220	Sand, salt and pepper . . . . .	10 1,210
<b>CJ-69-11adab. Alt. 5,265 ft.</b>		Clay, gray; contains medium-white sand . . . . .	30 250	Shale, sandy, gray . . . . .	15 1,225
Fill . . . . .	2 2	Ash, somewhat sandy, white . . . . .	10 260	Shale, sandy, gray; contains coal . . . . .	5 1,230
Post-Piney Creek alluvium: Clay, sandy . . . . .	3 5	Lower conglomerate: Sand, ashy, white . . . . .	5 265	Shale, sandy, gray . . . . .	5 1,235
Broadway and Louviers Alluvium, undifferentiated: . . . . .		Sand, coarse; contains dry shale . . . . .	5 270	Clay, gray . . . . .	5 1,240
Sand and gravel . . . . .	16 21	Sand, medium . . . . .	5 275	Shale, sandy, gray; con- tains gray clay . . . . .	5 1,245
Dawson Formation (upper part): . . . . .		Sand, ashy, white . . . . .	10 285	Shale, sandy, gray; contains coal . . . . .	10 1,255
Shale, blue . . . . .	6 27	Sand, medium, white . . . . .	10 295	Shale, gray; contains carbonaceous shale . . . . .	10 1,265
Shale, gray . . . . .	113 140	Sand, medium and coarse . . . . .	35 330	Shale, sandy, gray . . . . .	5 1,270
Dawson Formation (lower part): . . . . .		Sand, fine, white . . . . .	35 365	A sandstone: Sand, fine, brown . . . . .	5 1,275
Sandstone, gray (Middle conglomerate, 140 to 208 feet.) . . . . .	4 144	Sand, medium to coarse, white . . . . .	10 375	Sand, salt and pepper . . . . .	40 1,315
Sand, fine, white . . . . .	21 165	Sand, medium to coarse, white; contains gray clay . . . . .	10 385	Shale, sandy, gray . . . . .	15 1,330
Shale, gray . . . . .	4 169	Sand, medium to coarse, white . . . . .	5 390	Shale, gray; contains some carbonaceous shale . . . . .	10 1,340
Sand and gray shale . . . . .	39 208	Sand, fine, white . . . . .	15 405	Sand, fine, salt and pepper . . . . .	35 1,375
Lime, sandy . . . . .	2 210	Sand, medium to coarse; contains gray clay . . . . .	10 415	Sand, salt and pepper . . . . .	5 1,380
Shale, gray . . . . .	4 214	Sand, medium to coarse clay, gray; contains some gravel . . . . .	10 425	Sand, fine . . . . .	5 1,390
Shale, blue . . . . .	3 217	Clay, gray; contains sand, and some ash . . . . .	10 435	Sand, salt and pepper . . . . .	4 1,395
Sandstone, blue . . . . .	23 240	Clay, gray; contains gravel . . . . .	10 445	Sand, salt and pepper; contains carbonaceous shale . . . . .	5 1,400
Shale, gray . . . . .	9 249	Gumbo, gray . . . . .	5 450	Shale, gray; contains salt and pepper sand . . . . .	10 1,410
Sandstone, blue . . . . .	9 258	Gumbo, gray; contains gravel . . . . .	5 455	Sand, salt and pepper; contains slightly car- bonaceous gray shale . . . . .	5 1,415
Shale, gray . . . . .	4 262	Sand, fine, white . . . . .	20 475	Shale, slightly carbon- aceous, gray; contains tight fine sand . . . . .	10 1,425
Sandstone, blue . . . . .	24 286	Clay, gray, and gravel . . . . .	10 485	Shale, carbonaceous, gray . . . . .	5 1,430
Shale, gray . . . . .	26 312	Gravel . . . . .	45 530	Sand, tight, fine, gray; contains coal . . . . .	5 1,435
Lower conglomerate: Sand, fine . . . . .	4 315	Clay, gray, and gravel . . . . .	5 535	Shale, carbonaceous gray . . . . .	5 1,435
Lime, sandy . . . . .	4 320	Gravel . . . . .	5 540	Sand, tight, fine, gray; contains coal . . . . .	5 1,435
Sand, fine; contains medium sand . . . . .	12 352	Clay, sticky, gray . . . . .	30 595	Shale, carbonaceous con- cretion, gray; contains hard white sand . . . . .	5 1,440
Shale, gray . . . . .	9 361	Clay, dark-gray . . . . .	45 640	Shale, gray; contains sandy shale con- cretion . . . . .	10 1,450
Sand . . . . .	9 370	Gumbo, light-gray . . . . .	50 690	Shale, carbonaceous, gray . . . . .	10 1,480
Shale, gray . . . . .	10 400	Sand, ashy, light-gray . . . . .	10 700	Fox Hills Sandstone: Milliken Sandstone Member: Sand, fine, white . . . . .	55 1,535
Sand, fine and medium . . . . .	15 433	Clay, dark-gray; con- tains lignite . . . . .	10 710	Shale, sandy, hard, light-gray; con- cretion . . . . .	10 1,545
Shale, gray . . . . .	18 461	Shale, sandy, light- gray . . . . .	5 715	Shale, light-gray, and concretion . . . . .	13 1,558
Sand, fine and medium . . . . .	28 487	Shale, sandy, gray, and carbonaceous shale . . . . .	5 720		
Shale, gray . . . . .	26 487	Shale, sandy, gray . . . . .	5 725		
Sand . . . . .	17 504	Clay, gray . . . . .	5 730		
Shale, gray . . . . .	9 513	Clay, gray, and carbon- aceous shale . . . . .	15 745		
Sand, fine . . . . .	6 519				
Laramie Formation: Shale, gray . . . . .	77 596				
<b>CJ-69-14acch. Alt. 5,104.6 ft.</b>					
Fill . . . . .	4 4				
Post-Piney Creek alluvium: Topsoil . . . . .	2 6				
Louviers Alluvium: Rock and sand . . . . .	12 18				
<b>CJ-69-14bada. Alt. 5,331 ft.</b>					
Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated: Sand, gravel, and boulders . . . . .	26 26				
Dawson Formation (lower part): . . . . .					
Middle conglomerate: Sand, sandstone, and gray shale . . . . .	103 129				
Shale, blue . . . . .	19 168				

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>CJ-69-15bbaa.</b> Alt. 5,430 ft.					
No sample	107				
Dawson Formation (upper part):					
Clay	20				
Clay, sandy	10				
Dawson Formation (lower part):					
Sand, fine. Middle con- glomerate, 137 to 290 feet	10				
Sand	11				
Clay	12				
Sand, fine	10				
Sand, fine, and clay	10				
Sand, fine	10				
Sand, fine, and clay or shale	10				
Shale	10				
Sand	70				
Sand and clay	10				
Sand and shale	10				
Sand	10				
Shale and sand	100				
Lower conglomerate:					
Sand and clay	10				
Sand	50				
Shale	20				
Sand	10				
Sand and clay	10				
Sand and shale	10				
Sand	10				
Sand and shale or clay	30				
Sand and clay	10				
Sand	10				
Shale	30				
Shale and sand	6				
Shale	10				
Shale and sand	10				
Shale or clay	19				
Shale and sand	10				
Shale	13				
Shale and sand	7				
Sand and shale	10				
Shale	30				
Shale and sand	10				
Shale	20				
Shale and sand	40				
Shale	10				
Shale and sand	20				
<b>CJ-69-15dbbc2.</b> Alt. 5,337.4 ft.					
Post-Piney Creek alluvium:					
Cobbles	3				
Louviers Alluvium:					
Gravel, very fine to coarse, subangular to well-rounded, arkosic, about 50 percent medium to very coarse sand, and scattered cobbles	4.5				
Gravel, very fine to coarse, very fine to fine sand, and grayish- orange silt; contains scattered cobbles	5				
Gravel, very fine to coarse, angular to well-rounded, arkosic, and very fine to very coarse sand; contains scattered cobbles to 14 feet	5				
Gravel, very fine, fairly well-sorted, and very coarse subangular to subrounded sand	5				
Sand, very coarse, fairly well-sorted, arkosic, angular to subrounded, and some very-pale-orange silt	5				
Dawson Formation (upper part):					
Shale, silty, noncalcar- eous, pale-olive; con- tains montmorillonite; at 27.5 feet	27.5				
<b>CJ-69-15dbcd.</b> Alt. 5,339.1 ft.					
Post-Piney Creek alluvium:					
Clay	1				
Clay, sandy	4				
Louviers Alluvium:					
Boulders, gravel, and sand	14				
Clay	4				
Boulders	2				
<b>CJ-69-15dcab.</b> Alt. 5,331.6 ft.					
Post-Piney Creek alluvium:					
Silt, sandy, very cal- careous, micaceous, moderate-yellowish- brown; contains some montmorillonite	2.5				
<b>CJ-69-15dca.</b> --Continued					
Louviers Alluvium:					
Gravel, very coarse, well- rounded, arkosic; con- tains about 20 percent sand, very fine to fine gravel, and some cobbles	2.5				
Gravel, medium to coarse, arkosic, rounded to well-rounded, and about 40 percent medium to coarse sand; contains pale-yellowish-brown calcareous silt and scattered cobbles	2.5				
Gravel, sand, and cobbles, very micaceous	2.5				
Gravel, very fine to coarse (about 40 percent coarse), subrounded to to rounded, and about 40 percent medium to coarse subangular to subrounded arkosic sand	7.5				
Sand, very fine to very coarse, subangular to subrounded, arkosic, and about 30 percent very fine to coarse subrounded to well- rounded gravel	5				
Dawson Formation (upper part):					
Shale, silty, pale-olive; contains montmorillo- nite, at 22.5 feet	22.5				
<b>CJ-69-15ddbc.</b> Alt. 5,330.4 ft.					
Post-Piney Creek alluvium:					
Silt, sandy, noncal- careous, micaceous, moderate-yellowish- brown	1				
Louviers Alluvium:					
Cobbles and boulders	4				
Silt, very sandy and gravelly, calcareous, grayish-orange; con- tains cobbles	2.5				
Gravel, very fine to very coarse, arkosic, subangular to well- rounded, numerous cobbles, and about 20 percent medium to very coarse sand	5				
Sand, very fine to very coarse, poorly sorted, subangular to sub- rounded, a little very fine to fine arkosic gravel, and grayish- orange noncalcareous silt (drills hard)	5				
Gravel, angular, well- cemented, and sand	7.5				
Dawson Formation (upper part):					
Shale, slightly silty and sandy, noncalcar- eous, light-olive- gray	10				
<b>CJ-69-15ddcd.</b> Alt. 5,328.5 ft.					
Fill	5				
Louviers Alluvium:					
Cobbles, coarse gravel, and sand	5.5				
Sand, poorly sorted, arkosic, subangular to rounded, silty, micaceous, poorly sorted very fine to medium gravel, and grayish-yellow very calcareous silt	1.5				
Gravel, very fine to coarse, subangular to well-rounded, arkosic, and about 40 percent medium to very coarse angular to subrounded sand; contains cobbles	5				
Cobbles, coarse gravel, and sand	5				
Sand, medium to very coarse, arkosic, sub- angular to subrounded, about 10 percent very fine to fine gravel, and some yellowish-gray micaceous silt	2.5				
Dawson Formation (upper part):					
Shale, slightly sandy, micaceous, noncalcareous, light-olive-gray; con- tains montmorillonite	2.5				
<b>CJ-69-16ddaa.</b> Alt. 5,362.6 ft.					
Post-Piney Creek alluvium:					
Topsoil	2				
Louviers Alluvium:					
Rock, sand, and gravel	15				
Dawson Formation:					
Shale, blue	3				
<b>CJ-69-17addd.</b> Alt. 5,475 ft.					
Slocum Alluvium:					
Topsoil	3				
Dawson Formation (upper part):					
Limestone	8				
Sand and rock	11				
Clay	8				
Shale	6				
Limestone	2				
Sand	7				
Shale, gray	1				
<b>CJ-69-18acdc.</b> Alt. 5,543.3 ft.					
Slocum Alluvium:					
Clay, calcareous	6				
Sand and cobbles	12				
Sand and gravel	4				
Dawson Formation:					
Shale, brown	15				
Shale, blue	8				
<b>CJ-69-18ccccc.</b> Alt. 5,560 ft.					
Slocum Alluvium:					
Topsoil	4				
Sand and rock	6				
Sand and gravel	7				
Dawson Formation (upper part):					
Clay, yellow	11				
Clay, gray	2				
Clay and blue shale	2				
<b>CJ-69-18cddb.</b> Alt. 5,535 ft.					
Slocum Alluvium:					
Overburden	25				
Dawson Formation (upper and lower parts, undifferentiated):					
Clay and blue shale	65				
Sandstone and sandy shale	20				
Clay and shale	18				
Shale, sandy, and sand- stone	16				
Clay and shale	26				
Shale, sandy	12				
Clay and shale	13				
Dawson Formation (lower part):					
Lower conglomerate:					
Sandstone and sandy shale	27				
Shale	7				
Sandrock and sandstone	66				
Clay, blue	10				
Sandstone	14				
Clay and shale	20				
Sandrock and sand	10				
Clay	4				
Sandrock	4				
Shale	21				
Sand	9				
Shale and clay	10				
Sand and sandstone	11				
Shale	12				
Sand and sandstone	12				
Shale	4				
Sand and sandstone	4				
Sandrock	3				
Shale and clay	10				
<b>CJ-69-18dbaa.</b> Alt. 5,535 ft.					
Colluvium:					
Topsoil	1				
Clay	4				
Broadway and Louviers Alluvium, undifferentiated:					
Sand	9				
Sand and cobbles	7				
Dawson Formation:					
Shale	14				
<b>CJ-69-20acca.</b> Alt. 5,421.6 ft.					
Post-Piney Creek alluvium, and Broadway and Louviers Alluvium, undifferentiated:					
Rock and gravel	22				
Boulders, large, and fine sand	8				
Dawson Formation:					
Shale, blue	2.6				

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>CJ-69-21abcc. Alt. 5,380.5 ft.</b>					
Post-Piney Creek alluvium and Broadway and Louviers Alluvium, undifferentiated:					
Topsoil . . . . .	5	5			
Gravel and sand (water- bearing) . . . . .	25	30			
Dawson Formation:					
Shale . . . . .	2	32			
<b>CJ-69-21accc. Alt. 5,381 ft.</b>					
Post-Piney Creek alluvium and Broadway and Louviers Alluvium, undifferentiated:					
Sand and gravel . . . . .	10	10			
Dawson Formation (upper and lower parts, undifferentiated):					
Shale, gray . . . . .	126	126			
Shale, gray, and sand . . . . .	18	144			
Sandstone, brown . . . . .	2	146			
Sandstone, gray . . . . .	38	184			
No sample . . . . .	65	249			
Dawson Formation (lower part):					
Lower conglomerate:					
Sand, white . . . . .	6	255			
Lime . . . . .	4	259			
Sand and gray shale . . . . .	83	342			
Sandstone, gray, hard . . . . .	10	352			
No sample . . . . .	2	354			
Sandstone, gray . . . . .	6	360			
Sandstone, gray, hard . . . . .	1	361			
Sandstone, gray . . . . .	6	367			
Shale, gray, and fine sand . . . . .	1	369			
No sample . . . . .	74	443			
Shale, gray, and sand . . . . .	17	460			
No sample . . . . .	7	467			
Sandstone, gray, hard, and gray shale . . . . .	8	475			
Laramie Formation:					
Shale, gray . . . . .	17	492			
Shale . . . . .	104	596			
<b>CJ-69-21ccdd. Alt. 5,196.6 ft.</b>					
Piney Creek Alluvium:					
Clay . . . . .	25	25			
Slocum Alluvium:					
Sand and gravel . . . . .	10	35			
Dawson Formation:					
Clay, blue . . . . .	5	40			
<b>CJ-69-21dbcc. Alt. 5,384.7 ft.</b>					
Post-Piney Creek alluvium:					
Topsoil . . . . .	5	5			
Louviers Alluvium:					
Gravel, coarse . . . . .	5	10			
Dawson Formation:					
Shale at 10 feet					
<b>CJ-69-22cded. Alt. 5,405 ft.</b>					
Dawson Formation (upper part):					
Topsoil . . . . .	2	2			
Clay, sandy, yellow . . . . .	18	20			
Clay, yellow . . . . .	10	30			
Dawson Formation (lower part):					
Sand (middle conglomerate, 10 to 185 feet) . . . . .	40	70			
Shale, gray, and fine sand . . . . .	46	116			
Sand . . . . .	5	121			
Shale . . . . .	39	160			
Sand, interbedded with shale . . . . .	25	185			
Shale . . . . .	115	300			
Lower conglomerate:					
Sand, water-bearing, interbedded with shale . . . . .	225	525			
Shale . . . . .	25	550			
Sand, water-bearing . . . . .	35	585			
Shale . . . . .	10	595			
<b>CJ-69-23bbcc. Alt. 5,323.5 ft.</b>					
Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:					
Sand, very fine to medium, poorly sorted, arkosic, silty, sub- angular to subrounded, silty, moderate-yellow- ish-brown, and about 10 percent very fine to medium gravel; contains cobbles at 0.5 and 1.5 feet. . . . .					
Sand, very fine to medium, very fine gravel, scattered cobbles, and very sandy silty clay. . . . .	2.5	7.5			
Dawson Formation (upper part):					
Silt, sandy, noncalcareous, grayish-orange. . . . .	5	8			
Shale, silty, slightly sandy, noncalcareous, light-olive-gray; con- tains montmorillonite . . . . .	2	10			
<b>CJ-69-23bdcd. Alt. 5,402.4 ft.</b>					
Eolian sand and Slocum Alluvium, undifferentiated:					
Soil . . . . .	2	2			
Clay, sandy . . . . .	8	10			
Gravel and sand . . . . .	2	12			
Dawson Formation (upper part):					
Gravel, clay, and shale . . . . .	15	27			
Clay, gravel, and sand, mixed . . . . .	16	43			
<b>CJ-69-23cbda. Alt. 5,436 ft.</b>					
Eolian sand:					
Soil, sandy, micaceous, brown . . . . .	4	4			
Silt, sandy, noncalcar- eous, very micaceous, moderate-yellowish- brown; contains fine sand . . . . .	4.5	8.5			
Silt, sandy and gravelly, very calcareous, grayish-orange. . . . .	6	14.5			
Slocum Alluvium:					
Silt, very calcareous, very sandy, micaceous; contains cobbles and coarse gravel . . . . .	4	18.5			
Dawson Formation (upper part):					
Sandstone, very sandy siltstone, and very sandy very calcareous moderate-yellowish- brown shale; contains montmorillonite . . . . .	1.5	20			
<b>CJ-69-24cdcc. Alt. 5,413.0 ft.</b>					
Eolian sand and Slocum Alluvium, undifferentiated:					
Clay and streaks of sand . . . . .	19	19			
Clay . . . . .	11	30			
Dawson Formation:					
Shale, soft . . . . .	10	40			
<b>CJ-69-25bbbd. Alt. 5,429.7 ft.</b>					
Eolian sand:					
Soil . . . . .	2	2			
Sand . . . . .	12	14			
Sand and clay . . . . .	5	19			
Clay . . . . .	9	28			
Slocum Alluvium:					
Gravel and clay . . . . .	14	42			
Dawson Formation:					
Clay . . . . .	6	48			
Shale and clay . . . . .	6	54			
<b>CJ-69-26accc. Alt. 5,449.2 ft.</b>					
Piney Creek Alluvium:					
Soil . . . . .	1	3			
Sand . . . . .	10	13			
Slocum Alluvium:					
Sand, coarse . . . . .	6	19			
Gravel and shale . . . . .	8	27			
Dawson Formation:					
Clay and shale . . . . .	4	31			
<b>CJ-69-26dbdd. Alt. 5,464.0 ft.</b>					
Younger loess:					
Soil . . . . .	2	2			
Slocum Alluvium:					
Sand and clay . . . . .	17	19			
Sand and gravel . . . . .	8	27			
Gravel and streaks of clay . . . . .	1	41			
Dawson Formation:					
Clay . . . . .	9	50			
<b>CJ-69-27adcb. Alt. 5,530.1 ft.</b>					
Younger loess:					
Soil . . . . .	4	4			
Sand, fine . . . . .	18	22			
Slocum Alluvium:					
Sand, medium . . . . .	10	32			
Sand, coarse . . . . .	4	36			
Clay and sand . . . . .	6	42			
Sand and gravel . . . . .	20	62			
Clay and coarse sand . . . . .	7	69			
Rock, loose . . . . .	5	74			
Dawson Formation (upper part):					
Clay, blue, and gravel . . . . .	8	82			
<b>CJ-69-30adcb2. Alt. 5,510 ft.</b>					
Louviers Alluvium:					
Topsoil . . . . .	1	1			
Clay . . . . .	9	10			
Sand and gravel . . . . .	12	22			
Dawson Formation (upper part):					
Shale, brown . . . . .	14	36			
Shale, blue . . . . .	7	43			
Shale, blue, and sand . . . . .	11	54			
Shale, blue . . . . .	2	56			
Shale . . . . .	12	68			
<b>CJ-69-30adcb2. --Continued</b>					
Dawson Formation (lower part):					
Sand (middle conglomerate, 88 to 113 feet) . . . . .					
Shale, blue . . . . .	17	110			
Sand and shale . . . . .	3	113			
Shale, gray . . . . .	190	303			
Lower conglomerate:					
Sand and shale . . . . .	3	306			
Sandrock . . . . .	28	334			
Sand . . . . .	131	465			
Shale . . . . .	1	466			
Sand . . . . .	9	475			
Shale . . . . .	2	477			
Sand . . . . .	8	485			
<b>CJ-69-30addd. Alt. 5,519.1 ft.</b>					
Colluvium:					
Topsoil . . . . .	5	5			
Louviers Alluvium:					
Sand and rocks . . . . .	10	35			
Clay . . . . .	5	40			
Sand . . . . .	2	42			
Dawson Formation:					
Shale, blue . . . . .	3	45			
<b>CJ-69-30bddd. Alt. 5,519 ft.</b>					
Louviers Alluvium:					
Gravel . . . . .	18	18			
Dawson Formation (upper part):					
Clay, blue . . . . .	17	35			
Shale, blue . . . . .	29	64			
Dawson Formation (lower part):					
Sand, gray (middle conglomerate, 64 to 290 feet) . . . . .	5	69			
Shale, blue . . . . .	23	92			
Sand, gray . . . . .	16	108			
Sand, blue, and shale . . . . .	31	139			
Shale, pink . . . . .	1	140			
Sand and thin beds of shale . . . . .	74	214			
Sand, gray . . . . .	46	260			
Shale, blue . . . . .	7	267			
Sand, gray . . . . .	23	290			
Shale, sandy, gray . . . . .	24	314			
Shale, gray, and sand . . . . .	76	390			
Shale, blue . . . . .	5	395			
Lower conglomerate:					
Sand, gray . . . . .	131	526			
Slate, gray . . . . .	4	530			
Sand, gray . . . . .	35	565			
Shale, pink . . . . .	10	575			
Sand, gray . . . . .	85	660			
Laramie Formation:					
Shale, gray . . . . .	155	815			
Sand, gray . . . . .	5	820			
Shale, gray . . . . .	60	880			
Shell, hard . . . . .	2	882			
Shale, gray . . . . .	16	898			
Sand, red . . . . .	6	904			
Shale, gray . . . . .	5	910			
Shale, sandy, gray . . . . .	6	916			
Shale, gray . . . . .	17	933			
Sand, gray . . . . .	14	947			
Shale, gray . . . . .	33	980			
Sand, gray . . . . .	23	1,003			
Shale, gray . . . . .	82	1,085			
Sand, gray . . . . .	27	1,112			
Shale, sandy, gray . . . . .	8	1,120			
Shale, gray . . . . .	3	1,123			
Coal . . . . .	2	1,125			
Shale, gray . . . . .	10	1,135			
B and A sandstones, undifferentiated:					
Sand, gray . . . . .	160	1,295			
Sand, broken, gray . . . . .	10	1,305			
Coal . . . . .	2	1,307			
A sandstone:					
Sand, gray . . . . .	30	1,337			
Shell, hard . . . . .	4	1,341			
Fox Hills Sandstone:					
Milliken Sandstone Member:					
Sand, gray . . . . .	124	1,465			
Shale, gray . . . . .	14	1,479			
Sand, gray . . . . .	6	1,485			
Shale, gray . . . . .	105	1,590			
Lime shell, gray . . . . .	8	1,598			
Shale, gray . . . . .	1,402	3,000			
<b>CJ-69-30ddcc. Alt. 5,577 ft.</b>					
Colluvium:					
Sand, clay, and over- burden . . . . .	20	20			
Dawson Formation (upper and lower parts, undifferentiated):					
Shale, blue and gray, and fine sand . . . . .	232	252			
Shale, gray; contains a trace of sand . . . . .	178	430			
Dawson Formation (lower part):					
Lower conglomerate:					
Sand, shaly . . . . .	22	452			



Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C1-69-10ddcc. --Continued</b>		<b>C1-69-11cdag. --Continued</b>		<b>C1-69-11dddc. --Continued</b>	
Sand, good. . . . .	26 478	Sand and gray shale . . . . .	33 453	Clay, light- and dark- gray; contains some fine sand. . . . .	5 470
Shale, gray. . . . .	4 482	Lime. . . . .	2 455	Sand, coarse, gray clay, and ash. . . . .	5 475
Sand, good. . . . .	50 532	Shale, gray. . . . .	10 465	Conglomerate, gray, and tan clay. . . . .	5 480
Shale, blue. . . . .	10 542	Sand, fine. . . . .	12 477	Conglomerate and gray clay. . . . .	5 485
Sand, good. . . . .	24 566	Shale, gray. . . . .	11 488	Conglomerate, coarse, and andesitic clay. . . . .	5 495
Shale, blue. . . . .	5 571	Sand, fine. . . . .	5 493	Clay, gray, buff, and black, andesitic clay and some conglomer- ate. . . . .	5 500
Sand, fair. . . . .	25 596	Shale, gray. . . . .	13 526	Clay, gray, and benton- ite. . . . .	5 505
Shale, blue. . . . .	10 606	Shale, blue. . . . .	8 534	Conglomerate, and tan clay. . . . .	5 510
Sand, cemented. . . . .	12 618	Shale, gray. . . . .	7 541	Clay, gray; some con- glomerate. . . . .	10 520
Shale, blue. . . . .	18 636	Lower conglomerate: Sand, fine, and gray shale. . . . .	19 580	Clay, gray. . . . .	5 525
Sand, cemented. . . . .	1 637	Shale, gray. . . . .	14 594	Sand, black, andesite, and tan clay. . . . .	10 535
<b>C1-69-12ddcc. Alt. 5,626 ft.</b>		<b>C1-69-11dddc. Alt. 5,556 ft.</b>		<b>Lower conglomerate: Conglomerate, black, andesitic sand, and gray clay. . . . .</b>	
Piney Creek Alluvium: Topsoil. . . . .	2 2	No record. . . . .	100 100	Conglomerate, black, andesitic sand, and tan clay. . . . .	5 540
Clay, sandy, yellow. . . . .	5 7	<b>Dawson Formation (upper part):</b>		Clay, buff, and con- glomerate. . . . .	5 550
Louviers Alluvium: Gravel. . . . .	9 16	Sand, white ash, and light-gray clay [Upper conglomerate, 105 to 235 feet.]. . . . .	40 140	Sand, fine and coarse, and gray clay. . . . .	10 560
Dawson Formation (upper part): Clay, sandy, brown. . . . .	23 39	Clay, silty, light-gray. . . . .	20 160	Bentonite; some con- glomerate. . . . .	5 565
Sandstone, gray. . . . .	7 46	Clay, silty, light-gray, ashy. . . . .	2 162	Conglomerate, tan, and gray clay. . . . .	20 585
Shale, gray. . . . .	4 50	Conglomerate, coarse, varicolored. . . . .	13 175	Clay, gray and tan; some conglomerate. . . . .	5 590
Sandstone, gray. . . . .	18 64	Conglomerate, coarse, varicolored; contains gray clay. . . . .	5 180	Conglomerate and gray clay. . . . .	15 605
Shale, gray. . . . .	4 72	Clay, light- and dark- gray. . . . .	10 190	Bentonite and conglom- erate. . . . .	5 610
Sandstone, gray. . . . .	62 134	Clay, gray. . . . .	5 195	Clay, gray, bentonitic Clay, gray, and some white sand. . . . .	10 620
Shale, brown, and gray shale. . . . .	4 138	Clay, gray; contains white ash and white sand. . . . .	5 200	Clay, gray, and fine white sand. . . . .	5 625
Shale, gray, and sand- stone. . . . .	18 156	Clay, gray; contains white ash, white sand, and specks of lignite Clay, gray, and white ash. . . . .	5 205	Clay, gray, slightly sandy. . . . .	5 650
Shale, brown. . . . .	5 161	Clay, gray and buff. . . . .	10 220	Clay, gray and buff. . . . .	15 665
Shale, gray, and sand- stone. . . . .	39 200	Clay, gray and buff, and some coarse sand Sand, coarse, and gray shale. . . . .	5 225	Conglomerate, gray and buff clay, and bentonite. . . . .	10 675
Shale, gray. . . . .	202 402	Sand, coarse, angular, and gray clay. . . . .	5 230	Conglomerate, gray, and buff clay; contains specks of lignite. . . . .	5 680
Dawson Formation (lower part): Sand, fine, and gray shale [Middle conglom- erate, 402 to 508 feet.]. . . . .	26 428	Clay, gray. . . . .	10 245	Clay, light-gray, and some coarse sand. . . . .	15 705
Sandstone. . . . .	10 438	Clay, light-gray, some ash. . . . .	15 260	Shale, dark-gray, and coal. . . . .	5 710
Shale, sandy, gray. . . . .	11 449	Clay and conglomerate, buff and gray. . . . .	5 265	Clay, gray. . . . .	30 740
Shale, gray. . . . .	7 456	Clay, sandy, gray, and some conglomerate. . . . .	5 270	Clay, gray, and fine white sand. . . . .	15 755
Shale, sandy, gray. . . . .	5 461	Shale, gray and tan; some conglomerate. . . . .	5 275	Clay, gray, and rare conglomerate. . . . .	5 760
Sand, fine, and gray shale. . . . .	16 477	Clay, gray, and coarse sand. . . . .	5 280	Clay, gray. . . . .	30 790
Shale, sandy gray. . . . .	6 483	Clay, yellowish-gray. . . . .	5 285	Clay, gray and buff. . . . .	5 795
Sand and gray shale. . . . .	25 508	<b>Dawson Formation (lower part):</b>		Clay, gray. . . . .	20 815
Shale, gray. . . . .	101 609	Clay, gray, and coarse sand [Middle conglom- erate, 285 to 435 feet.]. . . . .	5 290	Gumbo, gray; contains specks of lignite. . . . .	5 820
Lower conglomerate: Sand, fine to coarse, and gray shale. . . . .	6 615	Clay, light-gray. . . . .	5 295	Gumbo, gray specks; contains some con- glomerate. . . . .	15 835
Lime. . . . .	3 618	Clay, light-gray; con- tains specks of lig- nite. . . . .	10 305	<b>Laramie Formation:</b>	
Sand, coarse, and gray shale. . . . .	52 670	Clay, light-gray. . . . .	20 325	Clay, gray; contains specks of lignite. . . . .	5 840
Shale, gray. . . . .	10 680	Shale, sandy, light- gray. . . . .	10 335	Clay, silty, gray. . . . .	5 845
Sand, medium to coarse Shale, gray. . . . .	10 690	Clay, light-gray; con- tains bentonite. . . . .	5 340	Clay, silty, gray. . . . .	10 860
Shale, gray. . . . .	11 701	Clay, gray, and sandy ash. . . . .	5 355	Clay, silty, gray; con- tains rare specks of lignite. . . . .	10 870
<b>C1-69-11ddag. Alt. 5,585.4 ft.</b>		Sand, medium, and gray clay. . . . .	5 360	Clay, gray; contains rare specks of lignite and some sand. . . . .	5 920
Younger loess: Topsoil. . . . .	8 8	Clay, buff and tan, and sand. . . . .	5 365	Clay, gray. . . . .	10 930
Clay, sandy. . . . .	7 15	Clay, buff and gray. . . . .	10 375	Clay, gray; contains specks of lignite. . . . .	5 935
Dawson Formation (upper part): Upper conglomerate: Shale, brown, water- bearing (yields 2 gpm). . . . .	22 17	Clay, gray; contains some bentonite. . . . .	10 385	Clay, gray. . . . .	5 940
Clay, sandy. . . . .	2 19	Clay, gray, and some conglomerate. . . . .	5 390	Clay, gray; contains specks of lignite. . . . .	10 950
Shale, brown. . . . .	6 45	Clay, dark-gray and buff, and some con- glomerate. . . . .	5 395	Clay, gray; contains hard, white sand. . . . .	10 960
Clay, sandy, yellow. . . . .	11 56	Sand, coarse, white, and gray clay. . . . .	5 400		
Shale, blue. . . . .	17 73	Shale, gray, and some white sand. . . . .	5 405		
Sand, water-bearing (yields 8 gpm). . . . .	5 78	Sand, coarse, quartz, white. . . . .	20 425		
Shale, blue. . . . .	2 80	Sand, very coarse, white, quartz; some clay. . . . .	10 435		
<b>C1-69-11cdag. Alt. 5,600 ft.</b>		Clay, light- and dark- gray; contains con- glomerate. . . . .	20 455		
Stocum Alluvium: Soil. . . . .	3 3	Clay, gray and buff. . . . .	5 460		
Dawson Formation (upper part): Sandstone, soft, brown. . . . .	14 17	Clay, light- and dark-gray. . . . .	5 465		
Clay, yellow. . . . .	1 18				
Shale, brown. . . . .	3 21				
Sandstone, blue [Upper conglomerate, 21 to 131 feet.]. . . . .	5 26				
Sandstone, gray. . . . .	68 94				
Shale, gray. . . . .	26 120				
Sandstone, gray. . . . .	11 131				
Shale, gray. . . . .	9 140				
Shale, blue. . . . .	13 173				
Shale, gray. . . . .	22 195				
Shale, blue. . . . .	8 203				
Shale, gray. . . . .	57 260				
Sandstone, gray. . . . .	4 264				
Shale, gray. . . . .	13 277				
Sandstone, gray. . . . .	12 289				
Shale, gray. . . . .	68 357				
Dawson Formation (lower part): Sand, fine [Middle con- glomerate, 357 to 493 feet.]. . . . .	6 363				
Shale, gray. . . . .	17 380				
Sand, fine. . . . .	10 410				
Shale, gray. . . . .	10 420				

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C1-69-11dddc. --Continued		C1-69-11dddc. --Continued		C1-70-12bdc2. --Continued	
Clay, gray; contains		Sand, gray and white;		sorted, subangular;	
rare specks of lig-		contains some loose		contains about 10	
nite. . . . .	20	sand. . . . .	5 1,375	percent medium-dark	
Clay, gray. . . . .	15	Shale, sandy, gray and		gray shale, lignite,	
Clay, gray; contains		tan, and some white		and gray carbonaceous	
fragments of coal .	5	sand. . . . .	5 1,380	siltstone; feldspar	
Clay, gray; contains		Shale, sandy, gray;		particles are well-	
fragments of coal		contains coal . . .	5 1,385	weathered. . . . .	20 136
and some white fine		Sand, white; contains		Silt, slightly sandy to	
sand. . . . .	5	coal. . . . .	5 1,390	clayey, compact,	
Clay, gray; fragments		Sand, medium, white,		slightly carbonaceous	
of coal. . . . .	10	and carbonaceous		and calcareous, light-	
Clay, gray. . . . .	10	shale . . . . .	5 1,395	olive-gray and light-	
Clay, silty, gray . .	25	Sand, medium, gray and		bluish-gray; cemented	
Clay, silty, gray;		white . . . . .	5 1,400	with pyrite at 172	
contains fragments		Sand, medium, gray and		feet . . . . .	36 172
of lignite. . . . .	45	white, and some coal	10 1,410	Dawson Formation (lower part):	
Clay, silty, gray;		Sand, fine, dirty, gray	5 1,415	Lower conglomerate:	
contains medium sand	5	Sand, fine, tan . . .	5 1,420	Sand, very fine	
Shale, fine, gray . .	5	Sand, medium, white and		to very	
Shale, fine, gray,		gray. . . . .	15 1,435	coarse, rounded to	
medium sand, and frag-		Sand, medium, white .	5 1,440	well-rounded, iron	
ments of lignite. . .	15	Shale, sandy, gray,		stained, slightly	
Shale, fine, tan and		and some white sand	5 1,445	micaceous; feldspar	
gray. . . . .	15	Shale, sandy, gray. .	5 1,450	particles are well-	
Sand, medium; contains		Shale, carbonaceous,		weathered. . . . .	22 194
gray shale . . . . .	5	and gray sandy shale;		Silt . . . . .	10 204
Shale, tan, medium		contains pyrite . .	5 1,455	Sand, very fine to very	
sand and some coal.	15	Shale, carbonaceous .	5 1,460	coarse, silty, sub-	
Clay, gray; contains		Shale, sandy, some		angular to well-	
specks of lignite . .	5	white, tight sand . .	5 1,465	rounded. . . . .	10 214
Clay, silty, gray, and		Shale, sandy, and some		Silt, compact to loose,	
fragments of coal . .	10	white, tight sand;		light-olive-gray;	
Clay, gray. . . . .	10	contains coal and		contains fine sand .	16 230
Clay, silty, gray;		pyrite. . . . .	5 1,470	Sand, very fine	
contains specks of		Shale, dark-gray, and		to very	
lignite . . . . .	10	some white medium		coarse, partly rounded	
Clay, gray; contains		sand. . . . .	5 1,475	to very well-rounded	
concretions . . . . .	5	A sandstone:		and frosted, partly	
Shale, sandy, gray;		Sand, medium, white,		subangular; feldspar	
contains concretions		gray sandy shale,		particles are well-	
and gray clay . . . .	5	and coal. . . . .	5 1,480	weathered; some grains	
Shale, sandy, gray, and		Shale, sandy, gray;		are iron stained . .	33 263
carbonaceous shale .	10	white and tan tight		Silt, slightly calcareous,	
Shale, sandy, gray. .	5	shaly sand. . . . .	5 1,485	carbonaceous, medium-	
Shale, sandy, gray;		Shale, sandy, gray. .	5 1,490	gray; contains very	
contains fragments		Sand, medium, white .	15 1,505	fine sand. . . . .	41 304
of coal . . . . .	15	Shale, sandy, gray,		Sand, very fine to medium,	
Shale, sandy, gray-		and sand. . . . .	10 1,515	rounded, frosted,	
green; contains frag-		Sand, medium and fine	10 1,525	cemented; contains a	
ments of coal and		Sand, medium, gray and		little coarse sand,	
some sand grains. . .	10	white . . . . .	5 1,530	some very fine gravel,	
Sand, fine, gray; con-		Shale, dark-gray, and		and about 10 percent	
tains tan and gray		fine sand . . . . .	10 1,540	light-olive-gray silty	
sandy shale . . . . .	5	Sand, medium, white .	5 1,545	shale. . . . .	14 318
Sand, fine, gray. . .	10	Sand, medium and fine,		Siltstone, medium-light-	
Sand, fine, gray and		gray and white. . .	10 1,575	gray to greenish-	
white . . . . .	5	Sand, medium, variegated;		gray . . . . .	10 328
Sand, fine, gray. . .	5	gray shale. . . . .	5 1,580	Sand, very fine to	
Sand, fine, gray; con-		Sand, medium to fine,		medium, cemented,	
tains concretion. . .	10	gray. . . . .	10 1,590	slightly calcareous;	
Sand, fine, gray; con-		Fox Hills Sandstone:		feldspar grains are	
tains sandy shale,		Milliken Sandstone Member:		deeply weathered . .	37 365
and concretions . . .	5	Sand, medium, salt and		Silt and siltstone,	
Sand, hard, fine, gray;		pepper. . . . .	35 1,625	sandy, moderately	
contains coal frag-		Sand, medium, salt and		calcareous, medium-	
ments . . . . .	5	pepper; some gray		light-gray . . . . .	29 394
Sand, hard, white;		shale . . . . .	5 1,630	Sandstone very fine-	
contains pyrite . . .	5	Sand, medium, salt and		to fine-grained, silty,	
Sand, hard, fine, gray		pepper. . . . .	5 1,635	compact, friable, iron	
and white; contains				stained; feldspar	
sandy shale . . . . .	5			grains are white	
Sand, medium to fine,				coated . . . . .	20 414
gray and white. . . .	5			Laramie Formation:	
Sand, medium to fine,				Siltstone, noncalcareous,	
gray and white; con-				greenish-gray; contains	
tains sandy shale				fine sand. . . . .	29 443
and gray shale. . . .	5			Sandstone, very fine-	
Shale, sandy, gray;				grained, hard, silty,	
contains coal . . . .	5			calcareous; iron stained	
Shale, carbonaceous;				in part; contains thin	
contains concretions				sandy limestone. . .	19 462
and coal. . . . .	5			Shale, silty, slightly	
Shale, sandy, gray. .	5			calcareous, carbonaceous,	
Shale, carbonaceous;				light-olive-gray and	
contains concretion,				light-gray, noncalcareous	
and tan and gray				to slightly calcareous;	
sandy shale . . . . .	10			contains some fragments	
Shale, carbonaceous;				of coal and a little	
contains concretion				swelling clay. . . .	166 628
and tan and gray				Limestone, very sandy,	
shale . . . . .	10			grayish-yellow, and	
Shale, sandy, gray;				white very calcareous	
contains coal . . . .	10			very fine-grained	
Sand, fine, salt and				sandstone. . . . .	1 629
pepper texture [S				Silt, noncalcareous, very	
sandstone, 1,350				sandy, medium-light-	
to 1,440 feet.] . . .	10			gray . . . . .	85 714
Sand, hard, fine, shaly;				Coal . . . . .	2 716
contains white sand	5			Siltstone, noncalcareous,	
Sand, hard, white, and				medium-light-gray. .	12 748
fine gray sand. . . .	5			Coal . . . . .	1 749

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C3-70-12bdc2. --Continued</b>		<b>C3-70-13cad. --Continued</b>		<b>C3-70-26bdb. Alt. 5,625.7 ft.</b>	
Siltstone, noncalcareous, light-olive-gray, and thin coal beds: con- tains some fine sand	101	Shale, gray	5	Colluvium:	
Sandstone, very fine- grained, soft	13	Sandstone, gray	16	Sand and clay, mixed	33
Siltstone, light-gray and light-blueish-gray, carbonaceous, noncal- careous, and silty	39	Shale, gray	6	Rock	8
Shale	2	Sandstone, gray	2	Sand and gravel	14.5
Coal	2	Shale, gray	3		55.5
Siltstone, light-gray	14	Sandstone, gray, and shale	44	<b>C3-71-13cab. Alt. 7,140 ft.</b>	
Coal	4	Shale, gray	37	Precambrian:	
Silt, slightly sandy, noncalcareous, light- gray, siltstone, and coal	46	Sand, fine to medium	3	Clay	33
Sand, medium to very coarse, subrounded to rounded, iron stained	15	Sandstone, gray	2	Granite, red	72
Silt, very sandy, medium- light-gray, and carbona- ceous pyritic noncal- careous siltstone	103	Sand	5	Shale, red	1
Coal	5	Shale, gray	74	Granite, red	44
Siltstone and silty shale	8	Lower conglomerate:			150
Coal	7	Sandstone, hard, gray	1	<b>C4-65-19cbbb. Alt. 5,600 ft.</b>	
Siltstone, carbonaceous, noncalcareous, pyritic	10	Sand	4	Broadway Alluvium:	
B and A sandstones, undifferentiated:		Shale, gray	4	Gravel, fill	2
Sand, very fine to fine, subangular to rounded; has salt and pepper texture	10	Sand, fine, white	12	Louviere Alluvium:	
Sand, very fine to coarse, subrounded to very well-rounded; contains some very fine gravel between 1.160 and 1.170 feet	46	Shale, gray	7	Clay, sandy, brown	33
Sandstone, fine-grained	38	Sand, medium to fine, and gray shale	5	Sand and gravel, water- bearing	15
Sand, very fine to very coarse, subrounded to rounded, noncalcareous, silty, medium-gray	48	Shale, gray	36	Dawson Formation (upper part):	
Shale, gray; contains pyrite and coal	2	Sandstone, gray	1	Shale	12
	1,260	Sand, gray	27	Sandstone, fine-grained, tight; contains thin shale breaks	36
<b>C3-70-13acg. Alt. 5,603 ft.</b>		Laramie Formation:	159	Shale, medium hard, blue to gray	22
Overburden	22	Shale	555	Sandstone, fine-grained, tight, water-bearing	10
Dawson Formation (upper part):		<b>C3-70-14bdb2. Alt. 5,688 ft.</b>		Shale, gray to blue; contains hard sandy shale breaks from 175 to 185 feet	92
Clay, blue, and shale	45	Colluvium and Dawson Formation, undifferentiated:		Sandstone, hard, tight	13
Dawson Formation (lower part):		Clay	33	Shale, gray; contains occasional sandstone breaks	89
Sandstone and shale		Sand	3	Coal	2
[Middle conglomerate, 67 to 100 feet.]	5	Dawson Formation (upper part):	24	Shale, gray	64
Clay	8	Clay	40	Upper conglomerate:	
Clay, sand, and shale	20	Shale, sandy	100	Sandstone, water-bearing; contains thin shale breaks	58
Clay and shale	145	<b>C3-70-14bdb. Alt. 5,671.5 ft.</b>		Shale, gray	30
Clay, sandy and shale	5	Colluvium:		Sandstone layers, thin, interbedded with shale breaks	32
Lower conglomerate:		Boulders and clay	30	Shale, gray	16
Sandstone	6	Dawson Formation (upper part):	22	Sandstone, thin layers, interbedded with shale breaks	59
Clay	2	Clay	5	Shale, gray	10
Sandstone	2	Sand	2		595
Clay	2	Shale	59	<b>C4-65-31bdb. Alt. 5,655 ft.</b>	
Sandstone and sand	12	<b>C3-70-23dcb. Alt. 5,630 ft.</b>		Overburden	
Shale and clay	41	Louviere Alluvium:		Dawson Formation (upper part):	52
Shale, sandy	24	Soil, sandy	2	Coal and blue clay	17
Sand and sandstone	7	Clay, sandy, yellow	20	Coal	8
Laramie (?) Formation:		Boulders	21	Clay and shale	69
Clay and shale	104	Dawson Formation (upper part):	3	Coal	11
	450	Clay, sandy, yellow	46	Clay and shale	100
<b>C3-70-13adcd. Alt. 5,573.3 ft.</b>		Shale, gray	68	Clay, sandy, and streaks of sand [Upper conglom- erate, 257 to 420 feet.]	25
Broadway Alluvium:		Shale, blue	5	Clay and shale	27
Soil	2	Shale, gray	62	Coal	7
Clay, sandy	6	Shale, brown	3	Clay	66
Louviere Alluvium:		Shale, gray	126	Clay sandy	8
Boulders	8	Dawson Formation (lower part):	310	Clay	17
Dawson Formation:		Sandstone, blue [Middle conglomerate, 310 to 451 feet.]	11	Clay, sandy, and sand	13
Sand, tight	26	Shale, blue	3	Clay	16
Clay, blue	4	Shale, gray	13	Coal	5
	46	Sandstone, gray	20	Clay	22
<b>C3-70-13cad. Alt. 5,588 ft.</b>		Shale, gray	19	Rock	1
Slocum Alluvium:		Sandstone, gray, and shale	33	Clay	6
Fill	1	Shale, gray	16	Shale, sandy	5
Soil	1	Shale, gray	425	Clay	22
Clay, yellow	6	Sandstone, hard, gray	4	Rock	464
Gravel	5	Shale, gray	4	Clay	470
Dawson Formation (upper part):		Sandstone, gray	12	Clay	475
Shale, blue	1	Shale, sandy, gray	5	Shale, sandy	5
Shale, gray	8	Shale, gray	56	Clay	28
Clay, yellow	20	Lower conglomerate:		Coal	2
Shale, gray	46	Sandstone, hard, gray	1	Clay	15
Dawson Formation (lower part):		Sand	24	Coal	1
Sandstone, blue [Middle conglomerate, 88 to 225 feet.]	8	Shale, gray	4	Clay, sandy	7
Shale, blue	6	Sandstone, hard, gray	3	Clay	33
	102	Sand and gray shale	7	Clay, sandy, and sand	29
		Shale, gray	49	Coal	1
			595	Clay	32
				Clay, sandy	7
				Clay	130
				Dawson Formation (lower part):	
				Middle conglomerate:	
				Sand and two clay streaks	11
				Clay	57
					850
				<b>C4-65-14abbc. Alt. 5,715 ft.</b>	
				Dawson Formation (upper part):	
				Soil	20
				Shale	63
				Clay	60
				Coal	12
				Clay	42
				Clay and shale	132
				Sandstone [Upper con- glomerate, 329 to 591 feet.]	28
					357

Table 1.--Logs of wells and test holes--Continued

Thickness	Depth	Thickness	Depth	Thickness	Depth
<b>C4-65-14abbc.</b> --Continued		<b>C4-66-4abda.</b> Alt. 5,431.0 ft.		<b>C4-66-5bcbab.</b> Alt. 5,444.0 ft.	
Sandstone, hard . . . . .	2	Piney Creek Alluvium:		Younger loess and Slocum(?) Alluvium.	
Clay and shale . . . . .	101	Sand, very fine, and		undifferentiated:	
Sandstone, hard . . . . .	4	loose micaceous	2.5	Clay . . . . .	63
Clay . . . . .	67	light-brown silt. . . . .	2.5	Sand, dirty. . . . .	9
Sandstone (water) . . . . .	58	Sand, fine to medium,		Dawson Formation:	
Sandstone, hard . . . . .	2	subangular to sub-		Shale at 72 feet	
Clay and shale . . . . .	240	rounded, silty. . . . .	3.5		
Dawson Formation (lower part):			6		
Middle conglomerate:		<b>Broadway Alluvium:</b>		<b>C4-66-5bcbba.</b> Alt. 5,438 ft.	
Sandstone (water) . . . . .	84	Gravel, very fine, to		Surface . . . . .	66
Clay . . . . .	10	sand, very coarse,		Dawson Formation (upper part):	
		angular to subrounded,		Shale, brown and yellow . . . . .	4
<b>C4-66-2cbdc.</b> Alt. 5,475.6 ft.		clean; contains tan	1.5	Coal . . . . .	1
Piney Creek Alluvium:		clay lenses and coal	7.5	Clay, blue . . . . .	65
Sand, fine, yellow. . . . .	11	fragments . . . . .		Coal . . . . .	1
Broadway Alluvium:		Sand, very coarse,		Clay, blue . . . . .	115
Sand, coarse, yellow. . . . .	2	fairly well-sorted,		Coal . . . . .	3
Louviers Alluvium:		arkosic, subangular,		Clay, gray . . . . .	46
Clay, red . . . . .	1	and about 10 percent		Sandstone . . . . .	15
Sand, fine, and muck. . . . .	2	very fine gravel. . . . .	8	Clay, blue . . . . .	32
Sand, coarse. . . . .	2	Louviers Alluvium:	15.5	Coal, soft . . . . .	6
Dawson Formation (upper part):		Sand, medium to coarse,		Clay, blue . . . . .	174
Clay, yellow . . . . .	16	angular to subangular,		Sandstone . . . . .	8
Clay, blue . . . . .	5.5	arkosic, finely		Shale, blue. . . . .	219
Shale, blue . . . . .	11.5	micaceous; contains	2	Sandstone, hard. . . . .	5
Clay, gray, and shale . . . . .	14	a little silt . . . . .	17.5	Shale, blue. . . . .	15
Shale, soft, gray . . . . .	35	Gravel, fine to medium,		Dawson Formation (lower part):	
		subangular, arkosic,		Middle conglomerate:	
<b>C4-66-2cccb.</b> Alt. 5,475.1 ft.		clean, and about 20	2.5	Sand (water) . . . . .	15
Post-Piney Creek alluvium:		percent fine to very	20	Clay, blue . . . . .	70
Sand, fine. . . . .	4	coarse sand . . . . .		Sand streaks (water). . . . .	40
Louviers Alluvium:		Sand, very coarse, well-		Shale. . . . .	20
Clay, sandy, brown. . . . .	24	sorted, arkosic, sub-	2.5	Shale and clay . . . . .	41
Gravel. . . . .	2	angular . . . . .	22.5		
Dawson Formation (upper part):		Sand, fine to very		<b>C4-66-5cab.</b> Alt. 5,445 ft.	
Clay, sandy, gray . . . . .	4	coarse, arkosic, sub-	5	Younger loess:	
Clay, gray and blue . . . . .	1	angular to subrounded	27.5	Clay, yellow . . . . .	16
		Gravel, very fine, to		Dawson Formation (upper part):	
<b>C4-66-2cccc.</b> Alt. 5,467.7 ft.		sand, very coarse,		Sandstone . . . . .	5
Post-Piney Creek alluvium:		angular to subrounded,		Clay, sandy. . . . .	11
Sand, white . . . . .	3.5	clean; contains tan	2.5	Sand . . . . .	16
Louviers Alluvium:		clay lenses and coal	30	Clay, yellow . . . . .	22
Sand, fine, silty . . . . .	3.5	fragments . . . . .		Clay, blue . . . . .	32
Sand, coarse. . . . .	3	Dawson Formation (upper part):		Shale, gray. . . . .	5
Sand, fine. . . . .	7.5	Shale, clay, noncalcar-	2.5	Sand (water) . . . . .	2
Sand, coarse. . . . .	1	eous, grayish-orange	32.5	Clay, blue . . . . .	26
Dawson Formation (upper part):				Shale, brown . . . . .	7
Shale, yellow . . . . .	6.5	<b>C4-66-4bdas.</b> Alt. 5,443 ft.		Clay, gray . . . . .	18
Shale, black and blue . . . . .	11	Piney Creek Alluvium:		Shale, brown . . . . .	12
Shale, sandy, black . . . . .	1	Clay, heavy; contains	14	Clay, green. . . . .	8
Shale, sandy, dark-		sandy streaks . . . . .	14	Shale, light-brown . . . . .	5
black . . . . .	50	Dawson Formation (upper part):		Shale, gray. . . . .	45
Shale, sandy, black . . . . .	31	Sandstone (water-	.7	Shale, light-brown . . . . .	19
Sandrock. . . . .	2	bearing). . . . .	14.7	Clay, green. . . . .	1
Shale, dark-blue. . . . .	30	Shale, blue . . . . .	17.3		
			32	<b>C4-66-5cccc.</b> Alt. 5,452 ft.	
<b>C4-66-1bad.</b> Alt. 5,447 ft.		<b>C4-66-4bdas2.</b> Alt. 5,443 ft.		Younger loess:	
Post-Piney Creek alluvium:		Piney Creek Alluvium:		Clay, brown. . . . .	27
Soil. . . . .	4	Soil. . . . .	6	Broadway Alluvium:	
Broadway and Louviers Alluvium,		Soil, sandy . . . . .	4	Gravel . . . . .	9
undifferentiated:		Dawson Formation (upper part):		Dawson Formation (upper part):	
Sand, fine. . . . .	14	Clay, yellow. . . . .	20	Shale, blue and light-	
Gravel. . . . .	11	Clay and shale. . . . .	10	blue . . . . .	234
Dawson Formation:		Clay and gravel . . . . .	5	Coal . . . . .	12
Shale, blue . . . . .	3	Clay. . . . .	20	Clay, brown. . . . .	78
		Coal. . . . .	5	Shale, blue. . . . .	44
<b>C4-66-1bcb.</b> Alt. 5,438 ft.		Shale, rotten . . . . .	4	Sand [Upper conglomerate,	
Post-Piney Creek alluvium:		Clay, gray. . . . .	16	404 to 573 feet.] . . . . .	5
Soil, sandy . . . . .	5	Shale and clay. . . . .	20	Clay, sandy. . . . .	5
Broadway Alluvium:		Shale . . . . .	4	Shale, blue; contains	
Sand. . . . .	3	Clay. . . . .	6	coal . . . . .	146
Louviers Alluvium:		Rock. . . . .	12	Sand streaks. . . . .	12
Clay. . . . .	1	Shale . . . . .	12	Shale, blue. . . . .	135
Gravel. . . . .	20	Shale and coal. . . . .	11	Shale, sandy . . . . .	2
Dawson Formation (upper part):		Shale . . . . .	16	Clay, sandy. . . . .	12
Shale . . . . .	8	Rock. . . . .	3	Sand, firm . . . . .	10
		Clay and streaks of		Shale, blue. . . . .	33
<b>C4-66-1dabc.</b> Alt. 5,460 ft.		coal. . . . .	12	Sand, firm . . . . .	8
Piney Creek Alluvium:		Rock. . . . .	1	Shale, blue. . . . .	144
Sand, fine. . . . .	4	Clay and shale. . . . .	78	Dawson Formation (lower part):	
Sand; contains clay . . . . .	6	Shale, clay, and a		Middle conglomerate:	
Broadway Alluvium:		streak of coal. . . . .	47	Sand . . . . .	15
Gravel, sandy. . . . .	3	Rock. . . . .	8	Shale, blue. . . . .	29
Louviers Alluvium:		Shale and a streak of		Sand; contains blue	
Clay and gravel . . . . .	5	coal. . . . .	14	shale. . . . .	73
Sand and gravel; contains		Rock. . . . .	2	Shale, blue. . . . .	26
a few boulders. . . . .	4	Clay and a streak of			
Dawson Formation (upper part):		shale . . . . .	31	<b>C4-66-7ddda.</b> Alt. 5,450 ft.	
Clay, brown . . . . .	2	Sand. . . . .	47	No sample. . . . .	232
		Shale and clay. . . . .	10	Dawson Formation (upper part):	
<b>C4-66-1dabd.</b> Alt. 5,455.3 ft.			444	Coal . . . . .	110
Piney Creek Alluvium:		<b>C4-66-4cccc.</b> Alt. 5,480.0 ft.		Sand (water) [Upper	
Topsoil . . . . .	.5	Younger loess:		conglomerate. 142 to	
Broadway Alluvium:		Sand, very fine to		545 feet.] . . . . .	203
Sand. . . . .	3.5	medium, and loose	2.5	Shale, sandy, gray . . . . .	29
Louviers Alluvium:		tan silt. . . . .	2.5	Coal . . . . .	1
Clay, brown . . . . .	7	Silt, sandy, very cal-		Shell, hard. . . . .	65
Sand and gravel . . . . .	6	careous, moderate-		Sand (water) . . . . .	9
Dawson Formation (upper part):		yellowish-brown and	2.5	Shale, sandy . . . . .	165
Clay, yellow-gray . . . . .	10	very-pale-orange. . . . .	5	Dawson Formation (lower part):	
Clay, blue. . . . .	2	Dawson Formation (upper part):		Sand, gray [Middle con-	
		Shale, silty, very cal-		glomerate, 814 to	
		careous, grayish-		950 feet.] . . . . .	136
		orange; contains much	7.5		950
		sand at 8.0 feet. . . . .	12.5		

Table 1.--Logs of wells and test holes--Continued

	Thick- ness	Depth		Thick- ness	Depth		Thick- ness	Depth
<b>C4-66-7ddda.--Continued</b>			<b>C4-66-8cccg.--Continued</b>			<b>C4-66-18ccpb.--Continued</b>		
Shale, hard	10	380	Sand, fine	4	936	Shale, gray; contains		
Shale, sandy	95	1,075	Sand, fine, hard	5	941	thin coal seams	100	690
Shale, dark-green	5	1,080	Shale, gray	18	959	Sandstone, shaly;		
Lower conglomerate:			Shale, sandy, gray	29	988	interbedded shale	30	780
Sand (artesian water)	25	1,105	Sand, fine, hard	8	996	Shale, gray	145	925
Shale, sandy	133	1,238	Shale, gray	12	1,008	Dawson Formation (lower part):		
Sand (heavy artesian			Sand, fine	4	1,012	Middle conglomerate:		
flow)	57	1,295	Shale, gray	16	1,028	Sandstone; contains		
Laramie Formation:			Sand, fine, and gray	13	1,041	occasional thin shale		
Shale, black	10	1,325	Shale	32	1,073	breaks	105	1,030
Sand, yellow	90	1,415	Lower conglomerate:			Shale	33	1,063
Coal	29	1,444	Sand, fine, and gray	21	1,094			
Shale, sandy, dark, and			Shale, gray	18	1,112			
some coal	158	1,602	Sand, fine, and gray	12	1,124			
Shale, brown	23	1,625	Shale, gray	36	1,160			
Coal	10	1,635	Sand, fine, and gray	12	1,172			
B sandstone:			Shale, gray	13	1,185			
Sand; show of gas	50	1,685	Sand, fine	5	1,190			
(water)			Shale, gray	23	1,213			
B and A sandstones,			Sand, fine, and gray	15	1,228			
undifferentiated:			Shale, gray	21	1,249			
Sand, dark	118	1,803	Sand, fine, and gray	32	1,281			
Shale, dark	21	1,824	Shale, gray	79	1,360			
Shale, sandy	41	1,865	Sand, fine, and gray	13	1,373			
Shale	20	1,885	Shale, gray	27	1,400			
Fox Hills Sandstone:								
Milliken Sandstone Member:								
Sand, dark	3	1,888						
Sand, hard, dark	28	1,916						
Sand	22	1,938						
Sand, hard	66	2,004						
Transition zone:								
Shale, sandy	47	2,051						
Sand, hard	109	2,160						
Shale, gray	30	2,190						
Sand, hard	80	2,270						
Shale, hard	72	2,342						
Shale, hard	118	2,460						
No sample	3	2,463						
Sand, hard	9	2,472						
Shale, sandy, light-								
colored	28	2,500						
Conglomerate, hard	15	2,515						
Shale, gray, and sand-								
stone	145	2,860						
<b>C4-66-8cccg. Alt. 5,450 ft.</b>			<b>C4-66-10sadb. Alt. 5,517.9 ft.</b>			<b>C4-66-20bcb. Alt. 5,569 ft.</b>		
Piney Creek Alluvium:			Older (?) loess:			Dawson Formation (upper part):		
Fill	3	3	Topsoil	2	2	Topsoil	2	2
Topsoil	2	5	Loam, red	4	6	Clay, brown to yellow	24	26
Clay, sandy, brown	7	12	Dawson Formation (upper part):			Clay, gray	31	57
Broadway Alluvium:			Clay, yellow	29	35	Shale, gray to blue;		
Sand	4	16	Clay, sandy, yellow	4	39	contains occasional		
Dawson Formation (upper part):			Clay, as above; more			interbedded coal		
Clay, gray	4	20	sand	2	41	seams	453	510
Clay, yellow	19	39	Clay, sandy, yellow	6	47	Sandstone (Upper con-		
Shale, blue	4	43	Clay, sandy, and broken			glomerate, 510 to		
Shale, gray	10	53	shale	3	50	585 feet.)	75	585
Shale, sandy, gray	7	60	Shale, broken, yellow			Shale	275	860
Shale, gray, and sand-			and blue	22	72	Dawson Formation (lower part):		
stone	42	102	Shale, blue	2	74	Middle conglomerate:		
Shale, gray	19	121	Sandrock	5	79	Sandstone	45	905
Sandstone, gray	21	142	Shale, blue	1	80	Shale	20	925
Shale, gray, and sand-			Sandrock	1	81	Sandstone	15	940
stone	97	239	Shale, sandy, hard	19	100	Shale	20	960
Coal	4	243						
Shale, gray	9	252						
Coal and gray shale	32	284						
Shale, gray	46	330						
Coal and gray shale	10	360						
Shale, sandy, gray	22	382						
Shale, gray	9	391						
Shale, sandy, gray	14	405						
Sand and gray shale								
[Upper conglomerate,								
405 to 583 feet.]	34	439						
Shale, gray	27	466						
Coal and gray shale	12	478						
Shale, gray, and sand-								
stone	21	499						
Shale, gray	8	507						
Sand and gray shale	31	538						
Sandstone	4	542						
Sand, medium to coarse,								
and gray shale	41	583						
Shale, gray	47	630						
Shale, sandy, gray	8	638						
Sand, fine	19	657						
Shale, gray	50	707						
Sand, fine, and gray								
shale	17	724						
Shale, gray	64	788						
Sand, fine	4	792						
Shale, gray	16	808						
Sand, fine	4	812						
Shale, gray	47	859						
Dawson Formation (lower part):								
Sand, fine, and gray								
shale (Middle con-								
glomerate, 859 to								
1,012 feet.)	41	900						
Shale, gray	12	932						

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C4-67-1daaa. Alt. 5,422 ft.</b>		<b>C4-67-1daaa.--Continued</b>		<b>C4-67-1caad.--Continued</b>	
Younger loess:		Rock.		Lime, sandy (8 sandstone,	
Soil.	8	Shale, blue.	1	1,604 to 1,665 feet.)	1 1,607
Sand.	7	Sand.	5	Sand and gray shale.	
Dawson Formation (upper part):		Shale, blue.	8	Interbedded.	58 1,665
Clay.	5	Shale, gray.	5	Shale, sandy, gray.	24 1,689
Clay, sandy.	10	Sand.	2	Shale, gray, and coal.	94 1,783
Clay.	20	Shale, gray.	23	A sandstone:	
Clay, sandy.	20	Shale, blue.	5	Sand.	59 1,842
Sandstone.	2	Sand.	10	Coal.	4 1,846
Shale, blue.	18	Shale, blue.	10	Shale, gray.	7 1,853
Shale, grayish.	10	Sand and shale.	10	Sand.	6 1,859
Shale, blue.	8	Shale, hard, blue.	15	Shale.	21 1,880
Sandstone.	2			Coal.	2 1,882
Shale, blue.	5	<b>C4-67-1caad. Alt. 5,370 ft.</b>		Fox Hills Sandstone:	
Shale, sandy, gray.	5	Younger loess:		Milliken Sandstone member:	
Shale, blue.	5	Soil.	2	Sandstone, hard.	1 1,885
Sandstone.	4	Clay, sandy, brown.	24	Sand, fine.	20 1,905
Coal.	1	Dawson Formation (upper part):		Transition zone:	
Shale, gray.	5	Clay, yellow and gray.	34	Shale, sandy, fine.	13 1,918
Shale, brown.	5	Shale, blue.	8	Sand and gray shale.	19 1,937
Shale, gray.	5	Shale, gray.	13	Shale, gray.	86 2,023
Shale, brown.	4	Shale, sandy, gray.	4		
Coal.	9	Shale, gray.	5		
Shale, brown.	7	Shale, brown, contains	5		
Shale, gray.	4	coal.	4		
Coal.	1	Shale, blue.	26		
Shale, blue.	5	Shale, gray.	7		
Shale, gray.	15	Shale, brown.	4		
Shale, blue.	5	Shale, blue.	6		
Shale, brown.	5	Shale, gray, and sand-	6		
Coal.	5	stone.	13		
Shale, blue.	5	Shale, gray.	13		
Shale, gray.	10	Sandstone, gray.	2		
Shale, blue.	5	Shale, blue.	8		
Shale, sandy, gray.	5	Sandstone, gray.	3		
Shale, blue.	15	Shale, gray.	8		
Shale, brown.	8	Shale, blue.	3		
Shale, gray.	7	Sandstone, gray.	5		
Shale, blue.	10	Shale, gray.	5		
Sandstone.	3	Shale, blue.	4		
Shale, brown.	10	Shale, brown.	3		
Shale, blue.	7	Shale, gray.	18		
Shale, gray.	10	Sandstone, gray.	3		
Coal.	10	Shale, blue.	8		
Shale, gray.	8	Shale, brown.	5		
Coal.	4	Shale, gray.	108		
Shale, blue.	3	Coal blossom.	2		
Coal.	5	Shale, sandy, gray.	6		
Shale, gray.	10	Shale, gray.	4		
Coal.	5	Shale, blue.	7		
Shale, gray.	5	Shale, sandy, gray.	13		
Shale, blue.	10	Shale, gray.	6		
Shale, gray.	19	Sandstone, gray.	4		
Sandstone.	4	Shale, brown.	5		
Shale, gray.	7	Sandstone, gray.	20		
Shale, blue.	10	Shale, blue.	8		
Shale, gray.	10	Shale, brown.	5		
Shale, blue.	30	Shale, gray.	70		
Coal.	5	Sand, fine.	6		
Shale, brown.	5	Shale, gray.	101		
Shale, blue.	30	Lime, sandy.	1		
Shale, gray.	30	Shale, gray.	100		
Shale, blue.	40	Sand, fine.	3		
Shale, gray.	15	Lime, sandy.	1		
Sand, fine (Upper con-		Dawson Formation (lower part):			
glomerate, 565 to		Sand (Middle conglomerate,			
644 feet.)	15	701 to 824 feet.)	7		
Shale, blue.	20	Shale, gray.	18		
Shale, gray.	10	Sand.	4		
Shale, blue.	10	Shale, gray.	5		
Sand.	2	Sand, fine.	10		
Shale, blue.	8	Shale, gray.	31		
Sand.	14	Sand, fine.	10		
Shale, blue.	6	Shale, gray.	31		
Shale, gray.	20	Sand, fine.	61		
Shale, blue.	20	Shale, gray.	8		
Shale, sandy, gray.	10	Shale, gray.	59		
Sand and shale.	10	Lower conglomerate:			
Shale, sandy, gray.	10	Sand, fine.	4		
Shale, blue.	10	Lime, sandy.	3		
Sand and shale.	14	Sand, fine.	7		
Shale, gray.	16	Shale, gray.	21		
Shale, sandy, gray.	10	Sand, fine.	17		
Shale and sand.	10	Shale, gray.	51		
Shale, blue.	10	Sand, fine, and gray	19		
Shale, gray.	10	shale.	41		
Coal.	5	Shale, gray.	27		
Shale, blue.	15	Sand, medium.	7		
Shale, gray.	10	Sand and gray shale.	11		
Dawson Formation (lower part):		Sand, medium.	12		
Middle conglomerate:		Shale, gray.	14		
Sandstone.	5	Sand, fine.	3		
Shale, sandy, gray.	5	Laramie Formation:			
Sand.	10	Shale, gray.	17		
Sandstone.	4	Coal.	8		
Sand, coarse.	5	Sand, fine, and gray	31		
Shale, blue.	2	shale.	100		
Sand.	9	Shale, gray.	59		
Rock.	1				
Sand.	5				
Shale, blue.	2				
Sand.	2				

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C4-67-6bdcg.--Continued</b>		<b>C4-67-6bdcg.--Continued</b>		<b>C4-67-6bdcg.--Continued</b>	
Middle conglomerate, 503 to 635 feet.	10	Sand, moderately cemented, slightly calcareous; 5 percent very coarse, 10 percent coarse, 50 percent medium, 25 percent fine, 10 percent very fine; contains pyrite	10	Shale, calcareous, light-gray	43
Shale, gray; contains ash and coal frag- ments	18	Shale, sandy, light- olive-gray	10	Fox Hills Sandstone: Milliken Sandstone Member: Sandstone, very fine- to medium-grained; contains iron-cemented nodules and fragments of fossils	1,727
Sand, very arkosic, angular to subrounded; 5 percent coarse, 10 percent medium, 50 percent fine, 15 percent very fine	9	Sand, 5 percent very coarse, 5 percent coarse, 45 percent medium, 10 percent fine, 15 percent very fine	885	Sand, 15 percent medium, 60 percent fine, 25 percent very fine; con- tains medium-sized pyritic nodules	1,747
Shale, sandy, gray	10	Shale, sandy, light- olive-gray	10	Shale, highly calcareous Sandstone, very fine- to coarse-grained, iron- cemented; contains pyritic nodules	1,764 1,781
Sand, 5 percent very coarse, 5 percent coarse, 10 percent medium, 10 percent fine, 10 percent very fine	13	Sand, 5 percent very coarse, 5 percent coarse, 15 percent medium, 10 percent fine, 20 percent very fine; con- tains coarse frag- ments of red and black basalt	905	Transition zone: Silt, silty sand, and shale; progressive decrease in sand toward bottom	1,795
Shale, light-gray	5	Shale, silty, light- olive-gray	15		45
Sand, arkosic, slightly frosted; 5 percent very coarse, 10 per- cent coarse, 15 per- cent medium, 35 per- cent fine, 35 per- cent very fine; sam- ple contains 10 per- cent mica, pyrite and other minerals	563 568	Sand, silty	925		
Shale, light-gray	5	Sand, silty	48	C4-67-7cddc. Alt. 5,345 ft. Eolian sand:	
Sand, very arkosic; 5 percent coarse, 25 percent medium, 50 percent fine, 20 percent very fine, sample contains 10 percent mica, schist, and hornblende	585 590	Sand, silty	7	Clay	7
Shale, silty, light- olive-gray	45	Sand and gravel	6	Louviere Alluvium:	
Shale, sandy; contains coal and basalt fragments	23	Shale, silty	20	Gravel	17
Sand, 5 percent coarse, 20 percent medium, 50 percent fine, 25 percent very fine	57	Sand, silty	6	Sand, dirty	11
Shale, silty, light- olive-gray	715	Sand, silty	13	Clay	40
Shale, sandy, contains coal and basalt fragments	730	Shale, silty	7	Gravel and rocks	5
Sand, 5 percent coarse, 20 percent medium, 50 percent fine, 25 percent very fine	750	Sand, silty	4	Dawson Formation (upper part):	
Shale, silty, light- olive-gray	20	Sandstone, calcareous	4	Sandstone, hard	5
Sand, very arkosic, an- gular to well-rounded; 5 percent very coarse, 10 percent medium, 40 percent fine, 20 per- cent very fine; sample contains 20 percent dark mineral and 10 percent mica	755	Sand, silty	1,046	Shale	3
Shale, sandy, light- olive-gray	42	Sand, silty	9		
Lower conglomerate: Sand, very arkosic; 5 percent very coarse, 10 percent coarse, 20 percent medium, 40 percent fine, 20 percent very fine, and 5 percent very fine gravel; sample contains 10 percent mica and 10 percent dark minerals	797	Shale, medium-gray	15	C4-67-8dcbh. Alt. 5,390 ft. Younger loess:	
Shale, sandy, light- olive-gray	810	Sand and shale, medium- gray	1,135	Clay	6
Sand, 5 percent very coarse, 10 percent coarse, 10 percent medium, 40 percent fine, 15 percent very fine	822	Laramie Formation:		Siocum Alluvium:	
Shale, sandy, light- olive-gray	827	Shale, silty, medium- gray	43	Sand and gravel	66
Shale, sandy, light- olive-gray	832	Coal	3	Clay	4
Sand, part well-cemented, highly calcareous; 5 percent very coarse, 10 percent coarse, 30 percent medium, 40 percent fine, 15 per- cent very fine; part cemented with pyrite	838	Shale, sandy	4	Gravel and boulders	3
Shale, sandy, light- olive-gray	12	Sand, shaly	10	Sand	5
Sand, 10 percent very coarse, 25 percent coarse, 10 percent medium, 20 percent fine, 10 percent very fine, and 5 percent very fine gravel	850	Coal	3	Dawson Formation (upper part):	
Shale, sandy, light- olive-gray	860	Shale, medium-gray	7	Rock, hard	2
	875	Sandstone, very fine- to medium-grained	1,178	Shale	11
		Sandstone, very fine- to fine-grained; contains about 10 percent medium sand; has salt and pepper texture	1,181 1,185 1,195 1,198 1,205 1,218 1,228 1,232 1,234 1,241	Rock, hard	3
		A sandstone: Sand, very fine, silty, iron stained; contains layers of shale	1,250 1,263 1,265 1,300 1,313 1,316 1,325 1,329 1,361 1,364 1,409		
		Sand, very arkosic, iron stained, 60 per- cent fine, 40 percent very fine	1,415 1,418 1,420 1,424 1,427 1,436 1,439 1,455 1,490	C4-67-10adab. Alt. 5,423 ft. Younger loess and Dawson Formation (upper part) undifferentiated: Clay, brown and yellow	83
		Shale, light-gray	1,665	Dawson Formation (upper part):	
		Sand, arkosic, iron stained, 60 percent fine; 40 percent very fine	1,670 1,684	Shale, gray	38
				Coal	3
				Shale, gray	100
				Sandstone, gray [Upper conglomerate, 224 to 329 feet.]	14
				Shale, gray	48
				Sandstone, gray	4
				Shale, gray	25
				Sandstone, gray	2
				Shale, brown	6
				Sandstone, gray	6
				Shale, gray	136
				Shale, gray, and sand- stone	11
				Shale, gray	216
				Dawson Formation (lower part):	
				Sand, fine Middle con- glomerate, 692 to 897 feet.	8
				Shale, gray	10
				Sand, fine	7
				Shale, gray	29
				Shale, gray, and fine sand	14
				Shale, gray	36
				Sand, fine	7
				Shale, gray	36
				Sand, medium to fine	38
				Shale, gray	71
				Sand	13
				Shale, gray	44
				Lower conglomerate:	
				Sand, medium	22
				Shale, gray	33
				Lime	2
				Shale, gray	55
				Sand, fine	8
				Laramie Formation:	
				Shale, gray	95

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C4-67-14cdd. Alt. 5.486 ft.</b>					
Younger loess:					
Soil. . . . .	1				
Clay, sandy . . . . .	22				
Slocum Alluvium:					
Sand, fine. . . . .	11				
Sand, coarse. . . . .	12				
Clay. . . . .	2				
<b>C4-67-15dddb. Alt. 5.473 ft.</b>					
Younger loess:					
Soil. . . . .	1				
Clay, sandy . . . . .	18				
Slocum Alluvium:					
Sand, fine. . . . .	13				
Sand, coarse. . . . .	5				
Clay. . . . .	4				
<b>C4-67-16cddb. Alt. 5.471 ft.</b>					
Eolian sand:					
Sand, fine. . . . .	21				
Younger(?) loess:					
Clay, sandy, brown. . . . .	28				
Clay, sandy, yellow . . . . .	11				
Dawson Formation (upper part):					
Clay, yellow. . . . .	12				
Sandstone, gray . . . . .	15				
Shale, blue . . . . .	9				
Sandstone, gray . . . . .	6				
Shale, gray, and sand- stone . . . . .	40				
Shale, sandy, gray. . . . .	4				
Shale, gray, and sand- stone . . . . .	14				
Shale, brown. . . . .	6				
Shale, gray . . . . .	25				
Shale, sandy, gray. . . . .	12				
Sandstone, gray, and shale . . . . .	187				
Shale, gray . . . . .	52				
Sandstone, gray and shale . . . . .	52				
Shale, brown. . . . .	11				
Sandstone, gray . . . . .	23				
Shale, brown. . . . .	8				
Shale, gray . . . . .	117				
Sand. . . . .	6				
Shale, gray . . . . .	59				
Shale, sandy, gray. . . . .	20				
Shale . . . . .	48				
Dawson Formation:					
Sand, fine, and gray shale (Middle conglom- erate, 786 to 882 feet). . . . .	18				
Shale, sandy, gray. . . . .	14				
Sand, fine. . . . .	10				
Shale, sandy, gray. . . . .	37				
Sand, coarse, and gray shale. . . . .	17				
Shale, sandy, gray. . . . .	11				
Sand, fine, and gray shale . . . . .	62				
Shale, gray . . . . .	19				
Sand, fine, and gray shale . . . . .	76				
Shale, gray . . . . .	21				
Sand, fine, and gray shale . . . . .	16				
Shale, sand, gray. . . . .	22				
Lower conglomerate:					
Sand, fine, and gray shale . . . . .	14				
Lime . . . . .	2				
Shale, gray . . . . .	5				
<b>C4-67-17dbbc. Alt. 5.400 ft.</b>					
Louviere Alluvium:					
Sand and gravel . . . . .	14.5				
Dawson Formation (upper part):					
Shale, brown. . . . .	2.5				
Shale, blue . . . . .	195				
Sand. . . . .	13				
Shale, blue . . . . .	401				
Shale and layers of sand. . . . .	71				
Shale, blue . . . . .	23				
Dawson Formation (lower part):					
Middle conglomerate: Sand. . . . .	28				
<b>C4-67-17ddbd. Alt. 5.389.0 ft.</b>					
Overburden. . . . .					
Dawson Formation (upper part):					
Clay, blue, and shale . . . . .	212				
Coal. . . . .	1				
Clay and shale. . . . .	414				
Sand and sandy clay. . . . .	11				
Clay. . . . .	6				
Sand. . . . .	5				
Clay. . . . .	5				
Rock. . . . .	2				
Clay, sandy . . . . .	8				
Clay. . . . .	25				
<b>C4-67-17ddbd. --Continued</b>					
Dawson Formation (lower part):					
Middle conglomerate:					
Sand, coarse. . . . .	9				
Rock. . . . .	1				
Clay and shale. . . . .	12				
Sand. . . . .	1				
Clay and shale. . . . .	28				
Sand and sandstone. . . . .	22				
Clay and shale. . . . .	33				
Sand and sandstone. . . . .	15				
Shale . . . . .	25				
Sand and sandstone. . . . .	6				
Shale . . . . .	10				
Sand and sandstone. . . . .	21				
Clay and shale. . . . .	33				
Sand and sandstone. . . . .	28				
Clay and shale. . . . .	16				
Sandrock. . . . .	3				
Sand. . . . .	4				
Clay. . . . .	29				
<b>C4-67-17ddbd2. Alt. 5.390.3 ft.</b>					
Piney Creek Alluvium:					
Soil. . . . .	8				
Broadway Alluvium:					
Sand, dirty. . . . .	22				
Gravel, fine. . . . .	4				
Louviere Alluvium:					
Clay. . . . .	1				
Gravel, fine. . . . .	8				
Gravel, coarse, and clay. . . . .	4				
<b>C4-67-18accc. Alt. 5.367.1 ft.</b>					
Piney Creek Alluvium:					
Sand, silt, and very fine to medium gravel, loose . . . . .	2.5				
Gravel, very fine to fine, arkosic, subrounded, coarse sand, and pale- yellowish-brown silt . . . . .	1				
Clay, very sandy and gravelly, brown; com- pact from 6.0 to 7.0 feet. . . . .	3.5				
Broadway Alluvium:					
Gravel, fine, arkosic, subrounded to rounded, coarse sand, and pale- yellowish-brown cal- careous silt. . . . .	5.5				
Gravel, very fine to medium, arkosic, sub- rounded, and about 20 percent coarse sand; contains fragments of welded tuff. . . . .	5				
Louviere Alluvium:					
Gravel, fine, arkosic, coarse sand, and cal- careous silt. . . . .	2.5				
Sand, medium to very coarse, subrounded, arkosic, and about 10 percent very fine arkosic subrounded to rounded gravel . . . . .	2.5				
Dawson Formation (upper part):					
Shale, silty, noncal- careous, grayish- orange, and a little very fine gravel, at 22.5 feet . . . . .	5				
<b>C4-67-18acaa. Alt. 5.356.5 ft.</b>					
Piney Creek Alluvium:					
Silt, micaceous, cal- careous, dark-greenish- gray; contains mont- morillonite . . . . .	5				
Silt, very sandy and gravelly, calcareous, greenish-gray; contains montmorillonite . . . . .	2.5				
Gravel, very fine to fine, subrounded to rounded, arkosic, coarse sand, and light olive-gray noncalcareous silt. . . . .	7.5				
Louviere Alluvium:					
Cobbles, gravel, and sand. . . . .	5				
Gravel, very fine to medium, arkosic, sub- rounded to rounded, very coarse sand, and light-olive-gray silt . . . . .	7				
Sand, very coarse, arkosic, subangular, and about 40 percent arkosic subangular very fine to fine gravel . . . . .	5				
<b>C4-67-18acaa. --Continued</b>					
Gravel, very fine to medium, clean. . . . .					
Sand, very coarse, arkosic, subangular, and about 40 percent arkosic subangular very fine to medium gravel . . . . .	5				
Dawson Formation (upper part):					
Shale, silty, sandy, medium-light-gray changing downward to light-olive-gray; slightly calcareous at top decreasing downward; contains montmorillonite. . . . .	4				
<b>C4-67-18accd2. Alt. 5.352.0 ft.</b>					
Broadway Alluvium:					
Soil, sandy. . . . .	10				
Louviere Alluvium:					
Clay . . . . .	5				
Gravel . . . . .	20				
Gravel and large rocks . . . . .	8				
Dawson Formation:					
Shale at 43 feet . . . . .					
<b>C4-67-18acdb. Alt. 5.356.1 ft.</b>					
Broadway Alluvium:					
Topsoil. . . . .	2.5				
Silt, calcareous, light- olive-gray, very fine arkosic subangular to subrounded gravel, and poorly sorted sand; contains montmoril- lonite . . . . .	10				
Sand, medium to very coarse, arkosic, sub- angular to subrounded, and about 20 percent very fine subrounded to rounded gravel. . . . .	10				
Louviere Alluvium:					
Gravel, very fine to fine, arkosic, subangular to well-rounded, and about 20 percent poorly sorted sand . . . . .	10				
Gravel, very fine to fine, subangular to rounded; contains cobbles and poorly sorted sand . . . . .	5				
Gravel, very fine. . . . .	2.5				
Gravel, very fine to fine, subangular to rounded, and about 20 percent poorly sorted sand; contains cobbles. . . . .	5				
Gravel, very fine to fine, subangular to rounded, and about 20 percent poorly sorted sand; sand increases to about 40 percent from 47 to 50 feet. . . . .	5				
Gravel, very fine, sub- angular to rounded, 40 percent poorly sorted sand, and some grayish- orange silt. . . . .					
Sand, fine to very coarse, subangular to rounded, arkosic, about 40 per- cent very fine to fine gravel, and some grayish- orange silt. . . . .	5				
Gravel, very fine, sub- angular to rounded . . . . .	4				
Dawson Formation:					
Shale, blue. . . . .	5.5				
<b>C4-67-18cabb. Alt. 5.349.5 ft.</b>					
Piney Creek, Broadway, and Louviere Alluvium, undifferentiated:					
Sand, fine. . . . .	17				
Dawson Formation (upper part):					
Clay . . . . .	3				
Sand, dirty, silty . . . . .	10				
Sandrock . . . . .	1				
<b>C4-67-18cadc. Alt. 5.378.1 ft.</b>					
Eolian sand:					
Topsoil, sandy, brown. . . . .	1				
Silt, sandy and gravelly, calcareous, dusky- yellow and pale- yellowish-brown. . . . .	9.5				
Broadway Alluvium:					
Sand, medium to very coarse, subangular to rounded. . . . .					



Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C4-67-18cadg.---Continued</b>		<b>C4-67-18dbbb2.---Continued</b>		<b>C4-67-19bdab.---Continued</b>	
arkosic, and about 40 percent very fine to medium gravel. . . . .		Cobbles, very fine arkosic subrounded gravel, and very coarse sand . . . . .		Dawson Formation (lower part): Middle conglomerate:	
Louviers Alluvium:	5 17.5	Gravel, very fine, arkosic, subrounded to well-rounded, and very coarse sand. . . . .		Sandstone. . . . .	1 726
Silt, sandy and gravelly, grayish-orange. . . . .	5 22.5	Clay, silty, very sandy, grayish-orange. . . . .		Shale, sandy, gray. . . . .	4 730
Sand, medium to very coarse, arkosic, subrounded to rounded, and a little very fine to fine gravel. . . . .	5 27.5	Gravel, very fine, angular to subrounded, poorly sorted sand, and grayish-orange silt. . . . .		Sandstone. . . . .	1 731
Dawson Formation (upper part):		Sand, very coarse, arkosic, angular to subrounded, clean, and about 40 percent very fine to fine arkosic subangular to subrounded gravel. . . . .		Shale, gray. . . . .	13 744
Silt, very sandy, calcareous, moderate-yellowish-brown and dusky-yellow; contains montmorillonite. . . . .	20 47.5	Cobbles, very coarse sand, and very fine to fine gravel. . . . .		Rock. . . . .	2 746
Silt, very sandy, very calcareous, micaceous, grayish-orange; contains montmorillonite. . . . .	12.5 50	Dawson Formation (upper part):		Shale, gray. . . . .	19 765
Shale, silty, sandy, noncalcareous; contains montmorillonite. . . . .	2.5 62.5	Shale, very silty, sandy, noncalcareous, dusky-yellow; contains montmorillonite. . . . .		Shale, sandy, gray. . . . .	1 766
<b>C4-67-18cbcd. Alt. 5,170 ft.</b>		<b>C4-67-19bdab. Alt. 5,415 ft.</b>		Shale, gray. . . . .	9 775
Fill. . . . .	4 4	Soil. . . . .		Shale, sandy, gray. . . . .	11 786
Eolian sand: . . . . .		Clay. . . . .		Shale, gray. . . . .	18 804
Sand. . . . .	11 15	Dawson Formation (upper part):		Sand. . . . .	1 805
Younger loess: . . . . .		Shale, brown. . . . .		Shale, gray. . . . .	4 809
Clay, yellow. . . . .	11 26	Clay. . . . .		Sand. . . . .	1 810
Slocum Alluvium: . . . . .		Shale, brown. . . . .		Shale, sandy, gray. . . . .	12 822
Gravel. . . . .	2 28	Shale, blue. . . . .		Sand and shale. . . . .	22 844
Dawson Formation (upper part):		Sandstone. . . . .		Sand. . . . .	1 845
Clay, brown, and sandstone. . . . .	6 14	Shale, hard, gray. . . . .		Sand and shale. . . . .	13 858
Sandstone, blue. . . . .	23 57	Shale, gray. . . . .		Sand. . . . .	3 861
Shale. . . . .	41 98	Shale, blue. . . . .		Sand and shale. . . . .	24 885
Sandstone, blue. . . . .	108 108	Sandstone. . . . .		Shale, gray. . . . .	5 890
Shale, blue. . . . .	127 127	Shale, hard, gray. . . . .		Shale, sandy. . . . .	20 910
Shale, gray. . . . .	81 208	Shale, gray. . . . .		Shale, hard. . . . .	15 925
Sandstone, gray. . . . .	12 220	Shale, blue. . . . .		Sand and shale. . . . .	10 935
Shale, blue and brown. . . . .	26 246	Sandstone. . . . .		Sand. . . . .	4 939
Shale, gray. . . . .	58 304	Shale, hard, gray. . . . .		Shale, sandy, gray. . . . .	4 943
Sandstone, gray. . . . .	19 323	Shale, sandy, gray. . . . .		Sand. . . . .	6 949
Shale, gray. . . . .	155 478	Shale, hard, gray. . . . .		Sand and shale. . . . .	56 1,005
Upper (?) conglomerate:		Shale, blue. . . . .			
Sand. . . . .	14 492	Shale, brown. . . . .		<b>C4-67-20aabb. Alt. 5,394.9 ft.</b>	
Shale, gray. . . . .	28 520	Shale, gray. . . . .		Piney Creek Alluvium:	
Sand, medium to coarse. . . . .	9 529	Shale, blue. . . . .		Topsoil. . . . .	3 3
Shale, gray. . . . .	31 560	Shale, brown. . . . .		Broadway Alluvium:	
Sandstone, gray. . . . .	18 578	Shale, gray. . . . .		Gravel. . . . .	16 19
Shale, gray. . . . .	34 612	Shale, blue. . . . .		Louviers Alluvium:	
Dawson Formation (lower part):		Shale, brown. . . . .		Sand. . . . .	7 26
Sand, fine, and gray shale [Middle conglomerate, 658 to 778 feet]. . . . .	75 687	Shale, gray. . . . .		Gravel and sand. . . . .	5 31
Shale, gray. . . . .	13 700	Shale, blue. . . . .		Gravel. . . . .	7 38
Sand, fine. . . . .	33 733	Shale, brown. . . . .		Clay. . . . .	2 40
Shale, gray. . . . .	13 746	Shale, gray. . . . .		Gravel and rock. . . . .	7 47
Sand, medium to coarse. . . . .	15 761	Shale, blue. . . . .		Dawson Formation:	
Shale. . . . .	6 767	Shale, brown. . . . .		Shale. . . . .	1 48
Sand, medium to coarse. . . . .	11 778	Shale, gray. . . . .			
Shale, gray. . . . .	65 843	Sandstone. . . . .		<b>C4-67-20accd. Alt. 5,398.7 ft.</b>	
Lower conglomerate:		Shale, gray. . . . .		Piney Creek Alluvium:	
Shale, gray, and fine to medium sand. . . . .	107 950	Shale, blue. . . . .		Topsoil. . . . .	2 2
<b>C4-67-18dbbb. Alt. 5,351 ft.</b>		Shale, brown. . . . .		Clay. . . . .	3 7
No sample. . . . .	6 6	Shale, gray. . . . .		Broadway Alluvium:	
Broadway Alluvium:		Shale, blue. . . . .		Gravel and sand. . . . .	7 14
Sand and gravel. . . . .	18 24	Shale, brown. . . . .		Louviers Alluvium:	
Louviers Alluvium:		Shale, gray. . . . .		Clay. . . . .	2 16
Clay, soft, brown. . . . .	7 31	Shale, sandy, gray. . . . .		Gravel. . . . .	33 49
Sand and gravel. . . . .	13 44	Shale, blue. . . . .		Gravel, rocks, and some clay. . . . .	5 54
Clay, blue. . . . .	9 53	Shale, brown. . . . .		Dawson Formation (upper part):	
Gravel. . . . .	6 59	Shale, gray. . . . .		Sandstone. . . . .	2 56
Dawson Formation:		Shale, blue. . . . .		Shale. . . . .	1 57
Shale, blue. . . . .	1 60	Sandstone. . . . .			
<b>C4-67-18dbbb2. Alt. 5,356.7 ft</b>		Shale, gray. . . . .		<b>C4-67-20acdd. Alt. 5,415 ft.</b>	
Post-Piney Creek alluvium:		Shale, blue. . . . .		Piney Creek Alluvium:	
Fill, sand, and gravel. . . . .	3 3	Shale, sandy, gray. . . . .		Fill. . . . .	2 2
Louviers Alluvium:		Sandstone. . . . .		Topsoil. . . . .	2 4
Gravel, fine to medium, arkosic, subrounded to rounded, and pale-yellowish-brown silt. . . . .	4.5 7.5	Shale, blue. . . . .		Younger loess:	
Sand, coarse to very coarse, arkosic, subrounded, 10 percent very fine to fine gravel, and pale-yellowish-brown silt. . . . .	5 12.5	Shale, brown. . . . .		Clay, yellow. . . . .	6 10
Silt, noncalcareous, micaceous, pale-yellowish-brown; contains fine sand. . . . .	1.5 14	Shale, gray. . . . .		Clay, sandy, yellow. . . . .	3 13
Sand, medium to coarse, fairly well-sorted, arkosic, loose. . . . .	3.5 17.5	Shale, gray. . . . .		Dawson Formation (upper part):	
		Shale, blue. . . . .		Sandstone, brown. . . . .	5 18
		Shale, brown. . . . .		Clay, yellow. . . . .	10 28
		Shale, gray. . . . .		Shale, gray. . . . .	7 35
		Shale, blue. . . . .		Shale, blue. . . . .	6 41
		Shale, brown. . . . .		Sandstone, gray. . . . .	4 45
		Shale, gray. . . . .		Shale, gray. . . . .	9 54
		Shale, sandy, gray. . . . .		Sandstone, gray. . . . .	12 66
		Shale, blue. . . . .		Shale, brown. . . . .	5 71
		Shale, brown. . . . .		Sandstone, gray. . . . .	4 75
		Shale, gray. . . . .		Shale, gray. . . . .	9 84
		Shale, blue. . . . .		Shale, brown. . . . .	6 90
		Shale, sandy, gray. . . . .		Shale, gray. . . . .	12 102
		Shale, blue. . . . .		Shale, brown. . . . .	5 107
		Sandstone. . . . .		Shale, blue. . . . .	6 113
		Shale, gray. . . . .		Shale, brown. . . . .	4 117
		Shale, blue. . . . .		Shale, gray. . . . .	3 120
		Shale, sandy, gray. . . . .		Sandstone, gray. . . . .	5 125
		Sandstone. . . . .		Shale, gray. . . . .	5 130
		Shale, blue. . . . .		Sandstone, gray, and gray shale. . . . .	30 160
		Shale, brown. . . . .		Shale, brown. . . . .	3 163
		Shale, gray. . . . .		Shale, gray, and sandstone. . . . .	23 186
		Limestone. . . . .		Shale, brown. . . . .	4 190
		Shale, sandy, gray. . . . .		Shale, gray, and sandstone. . . . .	21 211
		Shale, gray. . . . .		Shale, brown. . . . .	6 217
		Shale, sandy, gray. . . . .		Shale, gray. . . . .	23 240
		Sand and streaks of gray shale. . . . .		Sandstone, gray, and shale. . . . .	55 295
		Shale, gray. . . . .		Sand and gray shale. . . . .	29 324
		Shale, sandy, gray. . . . .		Shale, gray, and sandstone. . . . .	22 346
		Shale, gray. . . . .		Shale, brown. . . . .	4 350
		Rock. . . . .		Shale, gray. . . . .	48 398
		Shale, gray. . . . .			
		Shale, sandy, gray. . . . .			

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C4-67-20cddd.--Continued</b>		<b>C4-67-21bcda.--Continued</b>		<b>C4-67-28adcc.--Continued</b>	
Shale, brown. . . . .	7	Broadway and Louviers Alluvium, undifferentiated: . . . . .	45	Broadway Alluvium: . . . . .	
Shale, gray, and sandstone. . . . .	60	Gravel to large cobbles . . . . .	45	Gravel, very fine to fine, subangular to subrounded, arkosic, and about 10 percent very coarse sand . . . . .	3 19
Shale, brown. . . . .	4	Dawson Formation (upper part): . . . . .	48	Louviers Alluvium: . . . . .	
Sandstone, gray. . . . .	11	Sandstone . . . . .	5	Clay, sandy and gravelly, brown. . . . .	3.5 22.5
Shale, gray. . . . .	4	Shale . . . . .	53	Gravel, very fine to medium, arkosic, subangular to rounded, and about 30 percent medium to very coarse sand . . . . .	5 27.5
Shale, brown. . . . .	4			Sand, coarse to very coarse, slightly silty, angular to subangular, and about 10 percent very fine to medium gravel . . . . .	5 32.5
Shale, gray. . . . .	125	<b>C4-67-22bada. Alt. 5,485 ft.</b>		Gravel, very fine to medium, arkosic, subangular to rounded, and about 10 percent medium to very coarse sand . . . . .	15 47.5
Sand, fine. . . . .	6	Younger loess: . . . . .	32	Gravel, very fine, arkosic, subangular to subrounded; contains cobbles. . . . .	5 52.5
Shale, gray. . . . .	97	Loam, sandy . . . . .	32	Gravel, very fine to fine, arkosic, subangular to rounded; contains coarse to very coarse angular to subangular sand and interbedded cobbles. . . . .	16.5 69
Sand, fine. . . . .	9	Dawson Formation (upper part): . . . . .	38	Clay, sticky, tan. . . . .	1 70
Shale, gray. . . . .	88	Shale, gray . . . . .	6	Gravel and sand; contains cobbles from 90.0 to 94.0 feet. . . . .	24 94
Dawson Formation (lower part): . . . . .		Clay, brown . . . . .	40	Dawson Formation (upper part): . . . . .	
Sand, fine (middle conglomerate, 813 to 969 feet). . . . .	12	Sand (water). . . . .	7	Shale, sandy, gravelly, noncalcareous, light-olive-gray; limonite stained. . . . .	3.5 97.5
Sand, coarse, and gray shale . . . . .	15	Clay, blue. . . . .	5		
Shale, gray . . . . .	17			<b>C4-67-22cbda. Alt. 5,501 ft.</b>	
Sand, fine, and gray shale . . . . .	21	Eolian sand and Dawson Formation (upper part), undifferentiated: . . . . .	70	Soil and sandy clay . . . . .	70
Shale, gray . . . . .	78	Soil and sandy clay . . . . .	70	Dawson Formation (upper part): . . . . .	
Sand, fine. . . . .	13	Shale, blue-gray. . . . .	230	Shale, blue-gray. . . . .	100
Shale, gray . . . . .	32	Shale, gray . . . . .	100	Shale, gray . . . . .	600
Sand, fine, and gray shale . . . . .	18	Shale, brown. . . . .	25	Shale, brown. . . . .	625
Shale, gray . . . . .	37	Shale, blue-gray. . . . .	75	Coal and brown shale . . . . .	700
Lower conglomerate: . . . . .		Coal . . . . .	10	Shale, gray . . . . .	710
of gray shale . . . . .	21	Shale, gray . . . . .	80	Sand, fine, gray. . . . .	790
Shale, gray . . . . .	13	Sand, fine, gray. . . . .	85	Shale, gray . . . . .	825
Sand, fine, and gray shale . . . . .	19	Shale, gray . . . . .	75	Dawson Formation (lower part): . . . . .	900
Shale, gray . . . . .	7	Sand, white . . . . .	50		
				<b>C4-67-27cbac2. Alt. 5,454 ft.</b>	
				Piney Creek Alluvium: . . . . .	
				Sand, fine. . . . .	6
				Clay, brown . . . . .	16
				Louviers Alluvium: . . . . .	
				Sand and gravel . . . . .	20
				Dawson Formation: . . . . .	
				Shale . . . . .	2
				<b>C4-67-28adaa2. Alt. 5,455.1 ft.</b>	
				Eolian sand: . . . . .	
				Sand, fine to coarse, silty, loose. . . . .	2.5 2.5
				Silt, very sandy, noncalcareous; contains fine to medium arkosic sand. . . . .	6.5 9
				Louviers Alluvium: . . . . .	
				Sand, fine to medium, subangular to rounded, silty, arkosic, noncalcareous, very pale-orange, moderate-yellow, and grayish-yellow. . . . .	11 20
				Dawson Formation (upper part): . . . . .	
				Shale, silty, noncalcareous, olive-gray; contains montmorillonite. . . . .	2.5 22.5
				<b>C4-67-28mdca. Alt. 5,442.7 ft.</b>	
				Piney Creek Alluvium: . . . . .	
				Topsoil, sandy, buff. . . . .	5 5
				Silty, clayey and sandy, calcareous, pale-brown . . . . .	14.5 15
				Broadway Alluvium: . . . . .	
				Gravel, very fine to fine, arkosic, subangular, and fine to very coarse sand. . . . .	2.5 17.5
				Louviers Alluvium: . . . . .	
				Sand, medium to very coarse, gravelly, subangular, arkosic; contains cobbles from 19.0 to 19.5 feet . . . . .	5 22.5
				Gravel, very fine, subangular to subrounded, arkosic, and about 20 percent sand. . . . .	15 37.5
				Gravel, very fine to fine, arkosic, angular to subrounded; contains cobbles at 46.0 feet; becomes more rounded and well sorted between 47.5 to 50.0 feet. . . . .	12.5 50
				Dawson Formation (upper part): . . . . .	
				Shale, very silty and sandy, light-olive-brown; contains montmorillonite . . . . .	2.5 52.5
				<b>C4-67-28adcc. Alt. 5,438.2 ft.</b>	
				Piney Creek Alluvium: . . . . .	
				Topsoil, loose, brown . . . . .	2.5 2.5
				Silt, clayey, very sandy, calcareous, light-olive-gray; contains very coarse sand . . . . .	13.5 16
				<b>C4-67-20ddab. Alt. 5,411 ft.</b>	
				Piney Creek Alluvium: . . . . .	
				Clay . . . . .	3
				Broadway Alluvium: . . . . .	
				Sand and gravel . . . . .	21 24
				Louviers Alluvium: . . . . .	
				Clay . . . . .	11 35
				Sand and gravel . . . . .	10 45
				Dawson Formation: . . . . .	
				Shale . . . . .	1 46
				<b>C4-67-21babb. Alt. 5,460 ft.</b>	
				Piney Creek Alluvium: . . . . .	
				Topsoil, sandy. . . . .	3 3
				Broadway Alluvium: . . . . .	
				Sand. . . . .	8 11
				Dawson Formation (upper part): . . . . .	
				Clay, sandy, brown. . . . .	5 16
				Clay, yellow. . . . .	8 24
				Sandstone, brown. . . . .	8 32
				Clay, sandy, yellow. . . . .	11 43
				Sandstone, brown. . . . .	6 49
				Sandstone, gray . . . . .	5 54
				Shale, blue . . . . .	7 61
				Sandstone, gray . . . . .	16 77
				Shale, gray, and sandstone . . . . .	55 132
				Shale, brown. . . . .	8 140
				Shale, gray, and sandstone . . . . .	56 196
				Shale, brown. . . . .	4 200
				Sandstone, gray . . . . .	33 233
				Sandstone, soft . . . . .	9 242
				Shale, gray, and sandstone . . . . .	12 274
				Shale, sandy, gray. . . . .	13 287
				Shale, gray, and sandstone . . . . .	24 311
				Shale, sandy, brown . . . . .	6 317
				Shale, gray . . . . .	19 356
				Sand. . . . .	5 361
				Shale, sandy, gray. . . . .	11 372
				Shale, gray . . . . .	12 384
				Sandstone, gray . . . . .	12 396
				Shale, gray . . . . .	89 485
				Sandstone, gray . . . . .	6 491
				Shale, gray . . . . .	128 619
				Lime. . . . .	4 623
				Sand. . . . .	1 626
				Shale, sandy, gray. . . . .	27 653
				Shale, gray . . . . .	29 682
				Shale, sandy, gray. . . . .	9 691
				Shale, gray . . . . .	19 710
				Sand, fine, and gray shale . . . . .	92 802
				Dawson Formation (lower part): . . . . .	
				Middle conglomerate: . . . . .	
				Sand, coarse, and gray shale . . . . .	10 812
				Sand, fine, and gray shale . . . . .	12 844
				Sand, coarse, and gray shale . . . . .	86 930
				Shale, gray . . . . .	15 945
				<b>C4-67-21bcda. Alt. 5,408.9 ft.</b>	
				Piney Creek Alluvium: . . . . .	
				Clay. . . . .	5 5

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C4-67-28bada.</b> --Continued		<b>C4-67-28cacc.</b> --Continued		<b>C4-67-29abab.</b> --Continued	
Sand, very fine to very coarse, poorly sorted, subangular to sub-rounded, arkosic, wet . . . . .	5 33.5	Dawson Formation (upper part): Shale, silty, calcareous, dusky-yellow; contains montmorillonite and some gravel . . . . .	1.5 17.5	Shale, blue . . . . .	6 281
Sand, very coarse, fairly well-sorted, arkosic, subangular to sub-rounded . . . . .	5 38.5	<b>C4-67-28cbad.</b> Alt. 5.463 ft. No sample . . . . .	100 100	Shale, gray . . . . .	4 285
Gravel, very fine, arkosic, subangular to rounded, and 20 percent very coarse sand . . . . .	4 42.5	Dawson Formation (upper part): Shale, medium hard, blue to gray; interbedded stringers of sandstone . . . . .	120 220	Shale, blue . . . . .	13 365
Sand, medium to coarse, cemented; contains medium gravel and streaks of clay . . . . .	1 45.5	Shale, medium hard, blue to gray . . . . .	452 672	Shale, gray . . . . .	19 384
Dawson Formation (upper part): Shale and clay, blue . . . . .	3 48.5	Sand, fine-grained, medium hard (water) [Upper conglomerate, 672 to 706 feet.] . . . .	14 706	Lime . . . . .	1 385
<b>C4-67-28bada.</b> Alt. 5.426.6 ft. Piney Creek Alluvium: Topsoil . . . . .	3 3	Shale, dark-gray; occasional thin streaks of sand . . . . .	192 898	Sandstone, gray . . . . .	7 392
Broadway Alluvium: Sand . . . . .	5 8	Dawson Formation (lower part): Sand, coarse-grained (water) [Middle conglomerate, 898 to 965 feet.] . . . . .	67 965	Shale, blue . . . . .	9 401
Sand and fine gravel . . . . .	25 33	Shale, hard, gray to black . . . . .	45 1,010	Shale, gray . . . . .	17 418
Louviers Alluvium: Sand and silt, rust-colored . . . . .	6 39	<b>C4-67-28ccab.</b> Alt. 5.494.0 ft. Younger loess: Topsoil . . . . .	2 2	Shale, blue . . . . .	4 422
Boulders and cobbles, bedded . . . . .	5 44	Dawson Formation (upper part): Shale, silty, noncalcareous, compact, micaceous, pale-yellowish-brown; contains very fine sand . . . . .	5.5 7.5	Shale, gray . . . . .	4 426
<b>C4-67-28bdca.</b> Alt. 5.428 ft. Piney Creek Alluvium: Topsoil . . . . .	2 2	<b>C4-67-28cdag.</b> Alt. 5.443.4 ft. Younger loess: Topsoil . . . . .	2.5 2.5	Shale, brown . . . . .	3 434
Broadway Alluvium: Sand, fine . . . . .	14 16	Silt, clayey, slightly sandy, calcareous, compact, pale-yellowish-brown, increase in sand between 22.5 and 27.5 feet . . . . .	25 27.5	Shale, gray . . . . .	7 528
Sand, coarse . . . . .	23 39	Louviers Alluvium: Silt, sandy and gravelly, pale-yellowish-brown; contains about 30 percent sand . . . . .	5 12.5	Shale, blue . . . . .	17 545
Louviers Alluvium: Clay, sandy, light-brown . . . . .	3 42	Sand, arkosic, to very fine gravel; contains about 50 percent pale-yellowish-brown calcareous silt . . . . .	2.5 15	Shale, gray . . . . .	11 556
Sand and layers of gray sandy clay . . . . .	9 51	Dawson Formation (upper part): Shale, clay, pale-olive; contains montmorillonite . . . . .	2.5 37.5	Shale, blue . . . . .	7 563
Boulders . . . . .	2 53	<b>C4-67-29abab.</b> Alt. 5.443 ft. Younger loess: Topsoil . . . . .	2 2	Shale, gray . . . . .	16 570
Dawson Formation: Shale, gray and brown . . . . .	7 60	Clay, brown . . . . .	7 9	Shale, blue . . . . .	7 570
Shale, blue . . . . .	3 63	Louviers Alluvium: Sand . . . . .	18 27	Shale, gray . . . . .	5 586
<b>C4-67-28bdad.</b> Alt. 5.432.7 ft. Post-Piney Creek alluvium: Fill . . . . .	6 6	Dawson Formation (upper part): Clay, sandy, brown . . . . .	9 36	Shale, gray . . . . .	5 591
Broadway Alluvium: Gravel, very fine to fine, arkosic, sub-rounded, very silty, and very coarse sand . . . . .	4 10	Shale, blue . . . . .	4 40	Shale, blue . . . . .	12 603
Sand, medium to very coarse, and very fine to fine gravel . . . . .	2.5 12.5	Shale, brown . . . . .	5 45	Shale, brown . . . . .	11 614
Louviers Alluvium: Gravel, very fine to fine, subangular to sub-rounded, and about 30 percent medium to very coarse sand; contains cobbles at 17.0 feet . . . . .	10 22.5	Shale, blue . . . . .	17 62	Shale, blue . . . . .	22 636
Gravel, fine, well-sorted, subangular to sub-rounded . . . . .	5 27.5	Shale, gray . . . . .	8 70	Shale, gray . . . . .	52 688
Gravel, very fine to fine, arkosic, subangular to rounded, and about 30 percent fine to very coarse sand . . . . .	15 42.5	Sandstone, gray . . . . .	2 72	Lime . . . . .	1 689
Gravel, fine, arkosic, subangular to sub-rounded, fairly well-sorted . . . . .	6.5 49	Shale, gray . . . . .	2 74	Shale, blue . . . . .	9 698
Gravel, coarse . . . . .	1 50	Sandstone, gray . . . . .	15 89	Shale, gray . . . . .	38 736
Dawson Formation (upper part): Shale, silty and sandy, weathered, noncalcareous, soft, pale-olive-gray and yellow . . . . .	12.5 62.5	Shale, gray . . . . .	4 93	Sandstone, gray . . . . .	2 738
Shale and clay; contains montmorillonite; at 62.5 feet . . . . .		Shale, brown . . . . .	2 95	Dawson Formation (lower part): Sand [Middle conglomerate, 738 to 784 feet.] . . . . .	3 741
<b>C4-67-28cacc.</b> Alt. 5.462.4 ft. Younger loess: Topsoil . . . . .	2.5 2.5	Sandstone, gray . . . . .	2 97	Shale, gray . . . . .	9 750
Silt, sandy, pale-yellowish-brown . . . . .	5 7.5	Shale, gray . . . . .	11 108	Shale, blue . . . . .	5 755
Louviers Alluvium: Sand, very fine to very coarse, subrounded, silty, arkosic, calcareous, pale-yellowish-brown, and about 10 percent very fine gravel . . . . .	8.5 16	Shale, blue . . . . .	25 133	Shale, gray . . . . .	17 772
		Shale, brown . . . . .	9 142	Sand, fine, white . . . . .	12 784
		Shale, blue . . . . .	6 146	Shale, gray . . . . .	20 804
		Shale, brown . . . . .	6 154	Shale, gray . . . . .	88 892
		Shale, gray . . . . .	3 157	Sand . . . . .	23 915
		Shale, brown . . . . .	23 180	Shale, gray . . . . .	6 921
		Shale, blue . . . . .	5 185	Sand . . . . .	7 928
		Shale, brown . . . . .	9 194	Shale, gray . . . . .	17 965
		Sandstone, gray . . . . .	2 196	Sand . . . . .	10 975
		Shale, brown . . . . .	12 208	Shale, blue . . . . .	5 980
		Sandstone, gray . . . . .	1 209	Shale, gray . . . . .	26 1,006
		Shale, blue . . . . .	4 213	Shale . . . . .	31 1,037
		Sandstone, gray . . . . .	11 224	Lower conglomerate: Sand and gray layers of shale . . . . .	17 1,054
		Shale, blue . . . . .	3 227	Shale . . . . .	6 1,060
		Sandstone, gray . . . . .	2 229	<b>C4-67-30caab.</b> Alt. 5.442 ft. Younger loess: Soil and clay . . . . .	16 16
		Shale, sandy, gray . . . . .	4 233	Dawson Formation (upper part): Clay, sandy, hard . . . . .	17 33
		Shale, brown . . . . .	3 236	Clay, brown, hard . . . . .	12 45
		Shale, gray . . . . .	7 243	Shale, blue . . . . .	37 82
		Shale, blue . . . . .	4 247	Sandstone, hard . . . . .	2 84
		Shale, brown . . . . .	2 249	Shale, blue . . . . .	26 110
		Shale, gray . . . . .	26 275	Sandstone, hard . . . . .	4 114
				Shale, blue . . . . .	166 280
				Shale, hard, brittle, gray . . . . .	84 364
				Shale, blue . . . . .	186 550
				Shale, hard, brittle, gray . . . . .	222 772
				Shale, blue . . . . .	24 796
				Dawson Formation (lower part): Middle conglomerate: Sandstone and fine sand . . . . .	34 830
				Sand (water) . . . . .	41 871
				Sand, fine . . . . .	19 890
				Shale, blue . . . . .	10 900
				<b>C4-67-31bbcb.</b> Alt. 5.425 ft. Younger loess: Topsoil . . . . .	5 5
				Louviers Alluvium: Sand . . . . .	11 16
				Dawson Formation (upper part): Clay . . . . .	38 54
				Shale . . . . .	5 59
				Sandstone . . . . .	4 63
				Shale, sandy . . . . .	27 90
				Shale, gray . . . . .	12 102
				Shale, blue . . . . .	108 210
				Sandstone . . . . .	10 220

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C4-67-12babb.</b> Alt. 5,502 ft.		<b>C4-67-14aadb.</b> ---Continued		<b>C4-67-15bacc.</b> ---Continued	
Younger loess:		Shale, gray, and sand-		Shale, gray and brown.	
Soil, surface . . . . .		stone . . . . .		Sand, fine . . . . .	
Slocum Alluvium:		Shale, gray . . . . .		Shale, gray . . . . .	
Sand, dry . . . . .		Sandstone, hard, gray		Sand, fine . . . . .	
Dawson Formation (upper part):		Shale, gray . . . . .		Coal . . . . .	
Sandrock . . . . .		Sand, fine . . . . .		Shale, gray . . . . .	
Shale . . . . .		Shale, gray . . . . .		Sand, fine . . . . .	
Shale, blue . . . . .		Sand, fine . . . . .		Shale, gray and brown.	
Sandrock, brown . . . .		Lime, sandy . . . . .		Sand, fine . . . . .	
Clay and shale . . . . .		Sandstone, blue . . . .		Shale, gray and brown.	
Sandrock . . . . .		Shale, gray . . . . .		Sandstone, gray . . . .	
Clay and shale . . . . .		Dawson Formation (lower part):		Shale, gray and brown.	
Sandrock, hard . . . . .		Middle conglomerate:		Sand . . . . .	
Clay and shale . . . . .		Sand . . . . .		Shale, gray . . . . .	
Sandrock, brown (upper		Shale, gray . . . . .		Sand, fine . . . . .	
conglomerate, 141 to		Sand . . . . .		Shale, gray . . . . .	
561 feet.) . . . . .		Shale, gray . . . . .		Dawson Formation (lower part):	
Sand (water) . . . . .		Sand and shale . . . .		Middle conglomerate:	
Clay and shale . . . . .		Shale, gray . . . . .		Sand . . . . .	
Sandrock, brown . . . .		<b>C4-67-14dddb.</b> Alt. 5,493.8 ft.		Shale, gray . . . . .	
Clay and shale . . . . .		Piney Creek Alluvium:		Sand . . . . .	
Sandrock, hard . . . . .		Top . . . . .		Shale, gray . . . . .	
Clay and shale . . . . .		Sand and clay . . . . .		Sand . . . . .	
Sand, hard, and shale		Broadway Alluvium:		Shale, gray . . . . .	
Clay and shale . . . . .		Gravel, rusty, and sand		Sand . . . . .	
Sandrock, brown . . . .		Louviere Alluvium:		Sand and gray shale . .	
Clay and shale . . . . .		Gravel, fairly coarse,		Shale, gray . . . . .	
Shale, loose . . . . .		and clean sand . . . .		<b>C4-67-16cadd2.</b> Alt. 5,609.2 ft.	
Clay and shale . . . . .		Gravel, fine sand, and		Eolian sand:	
Shale, hard . . . . .		clay . . . . .		Sand, medium, slightly	
Clay and shale . . . . .		Gravel, some fine sand,		cemented, brown . . . .	
Clay, blue, and sand.		and clay . . . . .		Dawson Formation (upper part):	
Clay and shale . . . . .		Gravel, sand, and rocks		Clay, sandy, soft, brown	
Dawson Formation (lower part):		Dawson Formation:		Clay, clean, soft, gray	
Sand (water) (Middle		Shale . . . . .		Shale, subfirm, gray . .	
conglomerate, 814 to		<b>C4-67-14dddb.</b> Alt. 5,494.9 ft.		Sand, medium, loose	
1,047 feet.) . . . . .		Piney Creek Alluvium:		gray (some water loss)	
Clay and shale . . . . .		Soil, clayey, hard . . .		Shale, subfirm, gray . .	
Sand (water) . . . . .		Broadway Alluvium:		Shale, blue and gray . .	
Clay and shale . . . . .		Sand, coarse; contains		Shale, sandy, gray . . .	
Sand (water) . . . . .		fine gravel . . . . .		Shale, blue . . . . .	
Clay and shale . . . . .		Louviere Alluvium:		Shale, sandy, gray . . .	
Sand (water) . . . . .		Clay, brown . . . . .		Shale, blue and gray . .	
Sand, hard . . . . .		Sand, fine, and silt . .		Lime . . . . .	
Sand (water) . . . . .		Gravel, fine to medium,		Sandstone, gray . . . .	
Clay and shale . . . . .		and coarse sand . . . .		Shale, gray . . . . .	
Sand (water) . . . . .		Clay . . . . .		Shale, sandy, gray . . .	
Clay and shale . . . . .		Gravel, fine to medium		Shale, gray . . . . .	
Sand and shale . . . . .		Sand, coarse; contains		Shale, sandy, gray . . .	
(water) . . . . .		fine gravel . . . . .		Lime, sandy . . . . .	
Sand (water) . . . . .		Clay, brown . . . . .		Sandstone, brown . . . .	
Clay and shale . . . . .		Gravel, coarse and		Shale, gray, and sand-	
Lower conglomerate:		medium; contains		stone . . . . .	
Sand, fair (water came		pebbles; thin lens		Shale, brown and gray .	
to surface) . . . . .		of clay at 64 feet . . .		Coal . . . . .	
Clay and shale . . . . .		Gravel, medium to fine		Shale, brown, and coal	
Sand and shale (water		Gravel, fine, and coarse		blossom . . . . .	
started to flow at		sand . . . . .		Shale, gray . . . . .	
48 gpm from a depth		Dawson Formation:		Coal . . . . .	
of 1,246 feet) . . . .		Shale, soft, weathered,		Shale, gray . . . . .	
Clay and shale . . . . .		greenish . . . . .		Coal . . . . .	
Sand (water) . . . . .		Shale, blue, hard . . .		Shale, gray . . . . .	
Clay, white . . . . .		<b>C4-67-15baccb4.</b> Alt. 5,483.1 ft.		Coal blossom . . . . .	
<b>C4-67-11babb.</b> Alt. 5,510 ft.		Eolian sand:		Shale, sandy, brown . .	
No sample		Fill . . . . .		Sandstone, gray . . . .	
Dawson Formation (upper part):		Soil . . . . .		Shale, brown and gray .	
Clay and shale . . . . .		Sand . . . . .		Shale, sandy, gray . . .	
Sand, fine . . . . .		Dawson Formation (upper part):		Shale, gray . . . . .	
Sandrock . . . . .		Clay, yellow . . . . .		Sand . . . . .	
Sand, fine . . . . .		Sandstone, blue . . . .		Shale, gray and brown.	
Clay and shale . . . . .		Shale, gray . . . . .		Shale, sandy, gray . . .	
Sand, fine . . . . .		Lime . . . . .		Shale, gray . . . . .	
Clay and shale . . . . .		Sandstone, gray . . . .		Shale, sandy, gray . . .	
Dawson Formation (lower part):		Shale, blue and gray .		Shale, gray . . . . .	
Middle conglomerate:		Shale, gray . . . . .		Dawson Formation (lower part):	
Sand . . . . .		Sandstone, gray . . . .		Middle conglomerate:	
Clay and shale . . . . .		Shale, blue gray and		Sand, fine and medium.	
Sand, coarse . . . . .		brown . . . . .		Shale, gray . . . . .	
Clay . . . . .		Shale, sandy, gray . . .		Sand, fine and medium.	
<b>C4-67-14aadb.</b> Alt. 5,507 ft.		Shale, gray . . . . .		Shale, gray . . . . .	
Eolian sand:		Sandstone, gray . . . .		Sand, fine . . . . .	
Sand . . . . .		Lime . . . . .		Shale, gray . . . . .	
Younger loess:		Shale, gray and brown		Sand . . . . .	
Clay, sandy, yellow . .		Coal . . . . .		Shale, gray . . . . .	
Slocum Alluvium:		Shale, gray and brown		Sand . . . . .	
Sand . . . . .		Coal . . . . .		Shale, gray . . . . .	
Dawson Formation (upper part):		Shale, gray and brown		Sand . . . . .	
Clay, yellow . . . . .		Shale, sandy, gray . . .		Shale, gray . . . . .	
Shale, gray . . . . .		Shale, blue gray and		Sand . . . . .	
Sandstone, gray . . . .		brown . . . . .		Shale, gray, and sand.	
Shale, gray . . . . .		Sandstone, gray . . . .		Sand . . . . .	
Sandstone, gray . . . .		Shale, brown . . . . .		Shale, gray, and sand.	
Shale, gray . . . . .		Sandstone, gray . . . .		Shale, gray, and sand.	
Sandstone, gray . . . .		Shale, gray and brown		Shale, gray, and sand.	
Shale, gray . . . . .		Shale, sandy, gray . . .		Shale, gray, and sand.	
Shale, brown . . . . .		Shale, brown . . . . .		Shale, gray, and sand.	
Shale, gray . . . . .		Sandstone, gray (Upper		Shale, gray, and sand.	
Shale, brown . . . . .		conglomerate, 408 to		Shale, gray, and sand.	
<b>C4-67-14aadb.</b> Alt. 5,507 ft.		552 feet.) . . . . .		Shale, gray, and sand.	
Eolian sand:		10 418		Shale, gray, and sand.	
Sand . . . . .				Shale, gray, and sand.	
Younger loess:				Shale, gray, and sand.	
Clay, sandy, yellow . .				Shale, gray, and sand.	
Slocum Alluvium:				Shale, gray, and sand.	
Sand . . . . .				Shale, gray, and sand.	
Dawson Formation (upper part):				Shale, gray, and sand.	
Clay, yellow . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Sandstone, gray . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Sandstone, gray . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Sandstone, gray . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .				Shale, gray, and sand.	
Shale, gray . . . . .				Shale, gray, and sand.	
Shale, brown . . . . .					

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth			
<b>C4-68-2dbcc. Alt. 5,321.0 ft.</b>								
Eolian sand:								
Sand, loose, brown. . . . .	2	2	<b>C4-68-1ccbb. --Continued</b>					
Dawson Formation (upper part):		Sand, medium to very						
Silt, sandy, very cal- careous, grayish- orange; contains mont- morillonite . . . . .	12	14	coarse, arkosic,					
Shale, silty, very sandy, very calcareous, micaceous . . . . .	6	20	subangular to angular, silty, grayish-orange					
Shale, silty and sandy, micaceous, very cal- careous, moderate- yellowish-brown; con- tains montmorillonite	7.5	27.5	Cobbles . . . . .					
<b>C4-68-1abac. Alt. 5,273 ft.</b>		Dawson Formation (upper part):						
Eolian sand and Louviers Alluvium, undifferentiated:		Shale, silty, light-olive- gray, noncalcareous; contains montmoril- lonite. . . . .						
Sand and gravel . . . . .	98	98	<b>C4-68-1cdba. Alt. 5,238.0 ft.</b>					
Dawson Formation (upper part):		Piney Creek Alluvium:						
Clay and shale . . . . .	208	306	Loam, sandy, dark- brown . . . . .					
Sandrock, hard . . . . .	2	308	Broadway Alluvium:					
Clay . . . . .	20	328	Gravel, very fine to medium, angular to subrounded; contains some sand and silt. . . . .					
Sandrock . . . . .	24	352	Gravel, very fine, sub- angular to subrounded, arkosic, and very fine to very coarse sand . . . . .					
Clay . . . . .	8	360	Gravel, very fine to fine, subangular to subrounded, arkosic, and very fine to very coarse sand . . . . .					
Dawson Formation (lower part):		Louviers Alluvium:						
Sand (water-bearing)		Gravel; contains silt						
[Middle conglomerate, 360 to 445 feet.] . . . . .		Gravel, very fine to fine, and very fine to very coarse sand . . . . .						
Clay . . . . .	10	392	Sand, very silty, pale- yellowish-brown . . . . .					
Sandrock . . . . .	41	433	Sand, very fine to very coarse, angular to subangular, arkosic, and about 40 percent clean very fine to medium arkosic gravel . . . . .					
Clay . . . . .	4	437	Dawson Formation (upper part):					
Rock (water-bearing) . . . . .	8	445	Shale, silty, noncal- careous, light-olive- gray; contains mont- morillonite . . . . .					
Sandrock, hard . . . . .	37	482	<b>C4-68-1ddab. Alt. 5,307.0 ft.</b>					
Clay . . . . .	50	532	Eolian sand:					
Clay and shale . . . . .	117	649	Loam, sandy, brown. . . . .					
Lower conglomerates:		Slocum Alluvium:						
Sand (water-bearing) . . . . .		Sand, well-sorted, medium to coarse, arkosic, subrounded . . . . .						
Clay . . . . .	8	697	Sand, very fine, silty, noncalcareous, pale- yellowish-brown . . . . .					
Sand (water-bearing) . . . . .	42	739	Sand, very fine to coarse, silty, sub- rounded; contains about 10 percent coarse sand . . . . .					
Shale . . . . .	31	770	Sand, medium to very coarse, loose, and very fine gravel; con- tains a thin bed of clay . . . . .					
Clay . . . . .	12	782	Sand, very coarse, and very fine arkosic subrounded to rounded gravel . . . . .					
<b>C4-68-1cdbc. Alt. 5,236 ft.</b>		Clay, hard . . . . .						
Piney Creek Alluvium:		Sand, very fine to coarse, arkosic, sub- rounded to rounded. . . . .						
Fill . . . . .	10	10	<b>C4-68-4babc. Alt. 5,195 ft.</b>					
Broadway Alluvium:		Post-Piney Creek alluvium:						
Sand and gravel . . . . .		Fill . . . . .						
Louviers Alluvium:		Loam . . . . .						
Clay, silty . . . . .		Loam and rock . . . . .						
Sand and gravel (water- bearing) . . . . .		Broadway Alluvium:						
Dawson Formation:		Sand and gravel . . . . .						
Shale, brown . . . . .		Louviers Alluvium:						
Shale, blue . . . . .		Gravel and rock . . . . .						
<b>C4-68-1ccbb. Alt. 5,247.0 ft.</b>		Dawson Formation (upper part):						
Broadway Alluvium:		Sandrock, brown . . . . .						
Soil, sandy and clayey, dark-brown . . . . .		Clay, brown . . . . .						
Sand, fine to medium, arkosic, slightly silty, and about 5 percent very fine gravel . . . . .		Sandrock, brown . . . . .						
Gravel, very fine to fine, subangular, arkosic, and fine to very coarse sand . . . . .		<b>C4-68-5adad. Alt. 5,193.9 ft.</b>						
Gravel, very fine to medium, arkosic, sub- angular to subrounded, and about 20 percent fine to very coarse sand . . . . .		Post-Piney Creek alluvium:						
Louviers Alluvium:		Fill . . . . .						
Gravel, very fine to very coarse, and medium to very coarse sand; contains beds of tan sandy clay between 28.0 and 33.0 feet. . . . .		Sand . . . . .						
Cobbles . . . . .		Broadway and Louviers Alluvium, undifferentiated:						
Gravel, very fine to fine, and about 50 percent medium to very coarse sand . . . . .		Gravel, dirty . . . . .						
Silt, sandy, noncalcareous, pale-yellowish-orange; contains very fine sand . . . . .		Sand . . . . .						
Gravel and cobbles . . . . .		Clay, yellow . . . . .						
		Clay, blue . . . . .						
		Sand . . . . .						
		Clay, yellow . . . . .						
		Sand and gravel . . . . .						
		Dawson Formation:						
		Clay, yellow . . . . .						
		Shale, blue . . . . .						

Table 3.--Loss of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C4-68-1adbd. Alt. 5,198 ft. Piney Creek Alluvium: Fill . . . . . 6 6 Broadway Alluvium: Gravel . . . . . 15 21 Louviere Alluvium: Clay . . . . . 3 24 Gravel . . . . . 7 31 Gravel and boulders . 6 37 Dawson Formation: Clay . . . . . 1 38 Shale . . . . . 2 40		C4-68-7aacg. ---Continued Sand, firm . . . . . 6 414 Shale . . . . . 14 428 Sand; contains streaks of shale . . . . . 47 475 Shale . . . . . 17 492		C4-68-11dgb. Alt. 5,279 ft. Piney Creek Alluvium: Soil . . . . . 1.5 1.5 Sand, fine, dry . . . . 1.5 6 Flood clay . . . . . 6.5 6.5 Broadway Alluvium: Sand, dry . . . . . 1.1 7.6 Sand, fine (water- bearing) . . . . . 1.9 9.5 Flood clay . . . . . 5 10 Sand, fine (water- bearing) . . . . . 2.4 12.4 Flood clay . . . . . 6 13 Sand, fine (water- bearing) . . . . . 8 21 Louviere Alluvium: Sand, coarse (water- bearing) . . . . . 4 25 Flood clay . . . . . 5 25.5 Sand, coarse (water- bearing) . . . . . 11 36.5 Flood clay . . . . . 5 37 Gravel . . . . . 4.3 41.3 Dawson Formation: Shale at 41.3 feet	
C4-68-5cdab. Alt. 5,249.0 ft. Piney Creek Alluvium: Silt, sandy, and clayey, very calcareous, pale- yellowish-brown; con- tains montmoril- lonite . . . . . 7.5 7.5 Dawson Formation (upper part): Silt, very calcareous, moderate-yellowish- brown; contains mont- morillonite . . . . . 5 12.5 Silt, very calcareous, pale-yellowish-brown; contains montmoril- lonite . . . . . 10 22.5 Shale, very calcareous, dark-yellowish-brown; contains montmoril- lonite: at 22.5 feet		C4-68-9badb. Alt. 5,210 ft. Post-Piney Creek alluvium: Clay, black "doble" . 7 7 Broadway and Louviere Alluvium, undifferentiated: Sand and boulders . . 18 25 Dawson Formation: Shale, blue . . . . . 15 40		C4-68-11ddaa. Alt. 5,301.6 ft. Piney Creek and Broadway Alluvium, undifferentiated: Sand . . . . . 25 25 Louviere Alluvium: Clay, hard . . . . . 2.5 27.5 Sand . . . . . 2.5 30 Clay . . . . . 1 31 Sand, coarse . . . . . 15.5 46.5 Dawson Formation: Shale . . . . . 2.5 49	
C4-68-1cdcb. Alt. 5,289.0 ft. Dawson Formation (upper part): Topsoil, loam, sandy, dark-brown . . . . . 5 5 Shale, sandy and silty, very calcareous, pale- yellowish-brown and moderate-yellowish- brown; contains mont- morillonite . . . . . 12 12.5		C4-68-9bad. Alt. 5,210 ft. Post-Piney Creek alluvium and Louviere Alluvium, undifferentiated: Gravel and boulders . 28 28 Dawson Formation (upper part): Shale, clay, and blue sand, in alternate streaks . . . . . 72 100 Sandstone, hard . . . 91 191 Clay . . . . . 13 204 Dawson Formation (lower part): Middle conglomerate: Sandstone, soft, and clay . . . . . 49 253 Sandstone, medium . . 42 295 Clay . . . . . 10 305 Rock, hard . . . . . 45 350 Clay . . . . . 9 359 Sandstone . . . . . 49 408 Clay . . . . . 14 422 Sandstone, hard . . . 46 468 Clay . . . . . 32 500 Lower conglomerate: Clay and sand (water- bearing) . . . . . 59 559 Sandstone . . . . . 14 573 Sand (water-bearing) . 90 663 Sandstone . . . . . 10 673 Sand (water-bearing) . 72 745 Clay and sandstone . . 34 779		C4-68-12accb. Alt. 5,327.9 ft. Younger loess: Topsoil . . . . . 4 Broadway Alluvium: Sand, fine, dry . . . . 31 35 Louviere Alluvium: Sand, fine, and gravel (water-bearing) . . . 25 60 Dawson Formation: Clay, blue . . . . . 10 70	
C4-68-5dbda. Alt. 5,211.0 ft. Piney Creek Alluvium: Silt, sandy, very cal- careous, dark-yellowish- brown; contains coal fragments and small fragments of brick (probably fill) . . . . . 13 13 Louviere Alluvium: Gravel, very fine to coarse, subrounded to well-rounded, arkosic, loose . . . 6 19 Clay . . . . . 1 20 Sand, very fine to coarse, angular to well-rounded, and gravel . . . . . 8 28 Gravel, very fine to medium, well-sorted, arkosic, subangular to rounded, loose . . 9.5 37.5 Gravel, very fine to fine, well-sorted, arkosic, subangular to rounded . . . . . 13.5 51 Dawson Formation (upper part): Sandstone, very fine- grained, silty, soft, arkosic, noncalcareous, yellowish-gray, and very sandy shale; contains montmoril- lonite . . . . . 6.5 57.5		C4-68-9dca. Alt. 5,215.7 ft. Post-Piney Creek alluvium: Soil . . . . . 2 2 Broadway and Louviere Alluvium, undifferentiated: Gravel, coarse . . . . 28 30 Dawson Formation: Shale, blue . . . . . 2 32		C4-68-12ccba. Alt. 5,301.5 ft. Piney Creek and Broadway Alluvium, undifferentiated: Clay . . . . . 1 1 Sand . . . . . 11 12 Louviere Alluvium: Clay . . . . . 4 16 Sand and gravel . . . 32 48 Dawson Formation: Shale . . . . . 1 49	
C4-68-7aacg. Alt. 5,342 ft. Slocum Alluvium: Topsoil . . . . . 8 8 Gravel, coarse . . . . 12 20 Dawson Formation (upper part): Clay, brown . . . . . 40 60 Shale, blue . . . . . 6 66 Clay, sandy, blue . . . 12 78 Shale, blue . . . . . 38 116 Sandstone, blue . . . 10 126 Shale, blue . . . . . 10 136 Sand, firm . . . . . 5 141 Shale, blue . . . . . 7 148 Sand, firm . . . . . 7 155 Shale, blue . . . . . 102 257 Sand, firm . . . . . 3 260 Shale, blue . . . . . 44 304 Rock . . . . . 1 305 Shale, blue . . . . . 92 397 Coal . . . . . 2 399 Shale, blue . . . . . 9 408 Dawson Formation (lower part): Middle conglomerate:		C4-68-11dadd. Alt. 5,303.4 ft. Piney Creek Alluvium: Loam, sandy . . . . . 20 20 Broadway and Louviere Alluvium, undifferentiated: Gravel and rock . . . 28 48		C4-68-12cccb. Alt. 5,308.3 ft. Piney Creek Alluvium: Clay, sandy . . . . . 12 12 Broadway Alluvium: Sand and gravel . . . . 3 15 Louviere Alluvium: Clay . . . . . 29 44 Gravel . . . . . 6 50	
		C4-68-11bcdc. Alt. 5,271.8 ft. Piney Creek Alluvium: Clay, sandy, dry . . . 12 12 Dawson Formation: Shale, blue . . . . . 12 24		C4-68-12cccd. Alt. 5,309.7 ft. Piney Creek Alluvium: Fill . . . . . 7 Broadway Alluvium: Sand . . . . . 3 15 Dawson Formation (upper part): Shale, brown . . . . . 10 25 Sandstone, hard, blue . 3 28	
		C4-68-11dbaa. Alt. 5,285.1 ft. Piney Creek Alluvium: Topsoil . . . . . 8 8 Broadway and Louviere Alluvium, undifferentiated: Gravel, fine . . . . . 40 48 Louviere Alluvium: Gravel, coarse . . . . 4 52 Dawson Formation: Shale at 52 feet		C4-68-12ccdd. Alt. 5,318.6 ft. Piney Creek Alluvium: No sample . . . . . 1 1 Clay . . . . . 3 4 Broadway Alluvium: Sand, fine . . . . . 2 6 Louviere Alluvium: Clay . . . . . 3 9 Sand, gravel, and rock 30 39 Clay . . . . . 4 43 Sand . . . . . 2 45 Clay . . . . . 2 47 Gravel . . . . . 9 56 Rock, hard . . . . . 1 57	
				C4-68-11agac. Alt. 5,335.3 ft. Piney Creek Alluvium: Topsoil . . . . . 3 Broadway Alluvium: Sand . . . . . 9 12 Dawson Formation (upper part): Clay, sandy . . . . . 23 35 Shale, blue . . . . . 31 68 Sand and shale . . . . 12 80	

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C4-68-13acdd.</b> Alt. 5,134.7 ft.					
Post-Piney Creek alluvium and					
Broadway Alluvium, undifferentiated:					
Sand . . . . .	25	25			
Younger loess:					
Clay . . . . .	25	50			
Louviere Alluvium:					
Gravel . . . . .	30	80			
Shale at 80 feet					
<b>C4-68-13acdd.</b> Alt. 5,152.4 ft.					
Younger loess:					
Topsoil . . . . .	30	30			
Louviere Alluvium:					
Gravel (water-bearing)	3	33			
Dawson Formation:					
Shale at 33 feet					
<b>C4-68-13addd.</b> Alt. 5,145 ft.					
Piney Creek Alluvium:					
Topsoil . . . . .	3	3			
Broadway Alluvium:					
Sand . . . . .	26	29			
Louviere Alluvium:					
Clay . . . . .	1	30			
Sand (water-bearing) . .	17	47			
Dawson Formation (upper part):					
Sandstone, blue . . . .	21	68			
Shale . . . . .	2	70			
<b>C4-68-14baba.</b> Alt. 5,105.0 ft.					
Eolian sand:					
Sand, medium, very silty,					
noncalcareous, arkosic,					
subangular, dark-					
yellowish-brown . . . .					
2.5	2.5				
Slocum(?) Alluvium:					
Silt, very sandy, non-					
calcareous, dark-					
yellowish-brown . . . .					
5	7.5				
Sand, very fine to					
coarse, silty, pale-					
yellowish-brown . . . .					
6.5	14				
Dawson Formation (upper part):					
Silt, sandy, very cal-					
careous, pale-yellowish-					
brown; contains mont-					
morillonite . . . . .					
4	18				
Shale, clay, very cal-					
careous, yellowish-gray;					
contains montmorillo-					
nite . . . . .					
9.5	27.5				
<b>C4-68-15abda.</b> Alt. 5,260.0 ft.					
Fill . . . . .					
0.5	0.5				
Silt, slightly sandy,					
calcareous, dark-					
yellowish-brown . . . .					
3	3.5				
Broadway and Louviere Alluvium,					
undifferentiated:					
Gravel, very fine to					
medium, arkosic, an-					
gular to well-rounded,					
mostly subrounded,					
and medium to very					
coarse sand; contains					
about 10 percent coarse					
gravel from 7.5 to 10.0					
feet and 15.0 to 17.5					
feet; cobbles 13.5 to					
16.0 feet and 26.0 to					
27.5 feet . . . . .					
27.5	31				
Sand and fine gravel . .					
18	49				
Dawson Formation (upper part):					
Sandstone, and pale-					
yellowish-brown silty					
shale; contains					
montmorillonite . . . .					
3.5	52.5				
<b>C4-68-15bbcd.</b> Alt. 5,230 ft.					
Piney Creek Alluvium:					
Fill . . . . .	12	12			
Broadway Alluvium:					
Sand and gravel . . . .	13	25			
Dawson Formation (upper part):					
Clay, stiff . . . . .	2	27			
Clay, brown . . . . .	1	28			
Shale, blue . . . . .	12	40			
<b>C4-68-15bdab.</b> Alt. 5,234 ft.					
Broadway Alluvium:					
Clay, brown . . . . .	4	4			
Gravel . . . . .	18	22			
Louviere Alluvium:					
Clay . . . . .	5	27			
Gravel . . . . .	12	39			
Clay, blue . . . . .	6	45			
<b>C4-68-15cadd.</b> Alt. 5,250 ft.					
Piney Creek Alluvium:					
Fill . . . . .	14	14			
Slocum(?) Alluvium:					
Clay and rock; mixed . .					
16	30				
Dawson Formation (upper part):					
Clay, and blue sand . . .					
50	80				
Shale . . . . .	3	93			
<b>C4-68-15dcdb.</b> Alt. 5,264 ft.					
Road fill . . . . .					
4	4				
Broadway Alluvium:					
Sand, fine . . . . .	8	12			
Sand and gravel . . . .	3	15			
Louviere Alluvium:					
Boulders, sand, and					
gravel . . . . .					
9	24				
Sand, coarse, and					
small boulders . . . . .					
4	28				
Clay, white . . . . .					
5	33				
Sand, coarse, and					
small boulders . . . . .					
5	38				
Sand and gravel . . . . .					
4	42				
Dawson Formation (upper part):					
Sandrock . . . . .					
4	46				
Shale, hard, blue . . . .					
14	50				
<b>C4-68-15dcdb2.</b> Alt. 5,266 ft.					
Piney Creek Alluvium:					
Topsoil . . . . .	4	4			
Broadway Alluvium:					
Gravel, dry . . . . .	20	24			
Gravel, wet . . . . .	2	26			
Louviere Alluvium:					
Clay . . . . .	2	28			
Gravel and boulders . .	7	35			
Clay, blue . . . . .	3	38			
Gravel and boulders . .	11	49			
Dawson Formation:					
Shale . . . . .					
1	50				
<b>C4-68-16acdd.</b> Alt. 5,229.0 ft.					
Colluvium:					
Fill . . . . .	4	4			
Dawson Formation (upper part):					
Silt, sandy, noncalcareous,					
carbonaceous, dark-					
yellowish-brown; rust-					
colored limonite					
streaks and spots, and					
montmorillonite . . . .					
9	13				
Shale, silty, noncalcar-					
eous, pale-yellowish-					
brown; contains					
montmorillonite . . . .					
2	15				
Sandstone, silty, fine-					
grained, pale-yellow-					
ish brown and moderate-					
reddish-orange; contains					
montmorillonite . . . .					
1.5	16.5				
Shale, sandy, very hard,					
platy, brown . . . . .					
1	17.5				
<b>C4-68-16daba.</b> Alt. 5,227.0 ft.					
Piney Creek Alluvium:					
Loam, sandy, silty,					
noncalcareous, pale-					
yellowish-brown;					
contains very fine					
sand . . . . .					
4	4				
Louviere Alluvium:					
Gravel, very fine to					
cobbles, subrounded					
to well-rounded,					
arkosic, and about					
20 percent fine to					
coarse sand . . . . .					
11	15				
Gravel, very fine to					
fine, arkosic, sub-					
rounded to rounded;					
contains scattered					
cobbles . . . . .					
2.5	17.5				
Gravel, very fine to					
very coarse, arkosic,					
subangular to rounded					
7.5	25				
Gravel, very fine to					
very coarse, arkosic,					
subangular to well-					
rounded, about 40					
percent very coarse,					
and medium to very					
coarse sand . . . . .					
1.5	26.5				
Clay . . . . .					
1.5	28				
Gravel, very fine to					
medium; contains					
cobbles and boulders					
at 14.0 feet . . . . .					
7	35				
Dawson Formation (upper part):					
Sandstone, fine-grained,					
noncalcareous, poorly					
cemented . . . . .					
3.5	38.5				
Shale, silty, sandy,					
noncalcareous; con-					
tains montmorillonite .					
4	42.5				
<b>C4-68-16dadc2.</b> Alt. 5,235 ft.					
Piney Creek Alluvium:					
Topsoil . . . . .	3	3			
Louviere Alluvium:					
Sand and gravel . . . .	22	25			
Clay, brown . . . . .	4	29			
Sand and gravel . . . .	4	33			
Dawson Formation:					
Clay, brown and blue . .					
2	35				
Shale at 35 feet					
<b>C4-68-20aaba.</b> Alt. 5,145 ft.					
Piney Creek Alluvium:					
Clay, brown . . . . .	36	36			
Clay, sandy . . . . .	2	38			
Dawson Formation (upper part):					
Shale, brown . . . . .					
17	55				
Sandstone (water-bearing)					
21	76				
Shale, blue, at 76 feet					
<b>C4-68-21cddb.</b> Alt. 5,390.5 ft.					
Verdos Alluvium:					
Soil . . . . .	2	2			
Clay, sandy . . . . .	12	14			
Gravel . . . . .	5	19			
Dawson Formation (upper part):					
Clay, yellow . . . . .					
29	48				
Sandstone, sandy, blue					
9	57				
Shale, blue . . . . .					
13	70				
Sandstone, blue . . . . .					
11	81				
Shale, gray, and sand-					
stone . . . . .					
72	153				
Shale, brown . . . . .					
5	158				
Shale, gray . . . . .					
93	251				
Sand . . . . .					
3	254				
Lime . . . . .					
2	256				
Shale, gray . . . . .					
23	279				
Shale, blue . . . . .					
28	307				
Shale, sandy, gray . . .					
1	310				
Shale, gray . . . . .					
31	341				
Shale, brown . . . . .					
7	348				
Shale, gray . . . . .					
79	427				
Sandstone, white . . . .					
8	435				
Shale, blue . . . . .					
6	441				
Shale, gray . . . . .					
15	456				
Dawson Formation (lower part):					
Sand (Middle conglomerate,					
456 to 634 feet.) . . .					
90	459				
Shale, gray . . . . .					
3	549				
Lime . . . . .					
1	550				
Shale, sandy, gray . . .					
20	570				
Shale, gray . . . . .					
22	592				
Sandstone, white . . . .					
2	594				
Sand . . . . .					
3	597				
Shale, gray . . . . .					
5	602				
Sand, white . . . . .					
3	605				
Shale, brown . . . . .					
5	610				
Lime . . . . .					
9	619				
Shale, gray, and lime .					
12	631				
Sand, white . . . . .					
3	634				
Shale, gray . . . . .					
31	665				
Shale, sandy, gray . . .					
30	695				
Shale, gray . . . . .					
53	748				
Lower conglomerate:					
Sand, white . . . . .					
3	751				
Shale, gray . . . . .					
37	788				
Lime . . . . .					
1	789				
Shale, gray . . . . .					
16	825				
Sand . . . . .					
2	827				
Shale, gray . . . . .					
50	877				
Sand . . . . .					
3	880				
Lime . . . . .					
6	886				
Shale, gray . . . . .					
4	890				
<b>C4-68-22bbac.</b> Alt. 5,232 ft.					
Pre-Piney Creek alluvium:					
Soil, sandy, black . . .	6	6			
Boulder gravel . . . .	6	12			
Broadway and Louviere Alluvium,					
undifferentiated:					
Sand, coarse, and gravel					
32	44				
Dawson Formation:					
Shale . . . . .					
6	50				
<b>C4-68-22bdbc.</b> Alt. 5,258 ft.					
Broadway Alluvium:					
Sand and gravel . . . .	10	10			
Dawson Formation (upper part):					
Clay, brown . . . . .					
7	17				
Sandrock and clay . . .					
16	33				
Shale, blue . . . . .					
297	330				
Dawson Formation (lower part):					
Middle conglomerate:					
Sand . . . . .					
10	340				
Shale, blue . . . . .					
10	350				
Shale . . . . .					
15	365				
Shale, blue . . . . .					
28	393				
Sand . . . . .					
2	395				
Shale, blue . . . . .					
30	425				
Sand . . . . .					
10	455				
Shale and sand . . . . .					
11	466				
<b>C4-68-24adac.</b> Alt. 5,435 ft.					
No sample . . . . .					
18	18				
Dawson Formation (upper part):					
Clay and shale . . . . .					
56	74				
Sandstone . . . . .					
2	76				
Shale . . . . .					
148	224				
Clay . . . . .					
2	226				
Clay, blue . . . . .					
42	268				
Clay and shale . . . . .					
52	320				
Sand, hard . . . . .					
2	322				
Shale . . . . .					
15	337				
Clay, blue . . . . .					
33	370				
Sandstone . . . . .					
3	373				
Shale . . . . .					
3	376				
Sand . . . . .					
3	379				

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C4-68-24dcd. --Continued</b>		<b>C4-68-26ccc. --Continued</b>		<b>C4-68-28dcd. --Continued</b>	
Clay.	11 410	Sand, fine, white.	7 1,118	Sand, fine, interbedded	
Sand, blue.	2 412	Shale, gray.	21 1,139	with gray shale.	60 485
Shale.	7 419	Shale, gray, and fine		Clay, gray, in part	26 511
Sandstone.	2 421	sand.	8 1,147	sandy.	19 530
Shale.	9 430	Sand, fine.	3 1,150	Sand, white, and gravel	54 584
Sandstone.	2 432	Sand, fine, and gray		Clay, gray.	
Clay.	63 495	shale.	8 1,158	Lower conglomerate:	
Shale.	14 509	Shale, gray.	5 1,163	Gravel and clay.	10 594
Sandstone [Upper conglomer-		Sand, fine, and gray		Clay, gray.	11 605
ate, 509 to 528 feet.]	3 512	shale.	3 1,166	Sand, coarse, white,	
Sand (water-bearing).	4 516	Shale, gray.	130 1,296	and gravel.	19 624
Sandstone.	3 519	Coal.	2 1,298	Clay, gravelly, gray	10 634
Clay.	2 521	Shale, gray.	8 1,306	Gravel.	19 653
Sand (water-bearing).	7 528	Coal.	3 1,309	Clay, gray.	11 664
Clay.	42 570	Shale, gray.	3 1,312	Sand, medium, white.	6 670
Sand (water-bearing).	4 574	Coal.	2 1,314	Clay, gravelly, gray	9 679
Clay and shale.	9 583	Shale, gray.	27 1,341	Sand, coarse, white.	10 689
Sandstone.	1 586	Coal and gray shale.	19 1,360	Clay, gray, in part	
Clay and shale.	32 618	Sand, fine.	3 1,363	gravelly.	60 749
Sand (water-bearing).	10 628	Shale, sandy, gray.	13 1,376	Shale, gray and green.	
Sandstone.	4 632	Sand.	3 1,379	and sandy clay.	25 774
Shale, clay.	97 729	Coal and gray shale.	14 1,393	Clay, green.	19 793
Sandstone.	6 735	Sand and gray shale.	11 1,404	Sand, fine, white.	4 797
Clay and shale.	21 756	Shale, gray.	21 1,425	Clay, gray and green	51 848
Dawson Formation (lower part):		Coal.	4 1,429	Gravel, clayey.	6 954
Middle conglomerate:		B Sandstone:		Laramie Formation:	
Sand (water-bearing).	7 763	Sand.	91 1,520	Shale, gray and tan.	44 898
Clay and shale.	6 769	Shale, gray, and sand		Clay, gray, and coal	5 903
Sand (water-bearing).	4 773	[A sandstone, 1,520 to		Shale, gray.	10 913
Clay and shale.	19 792	1,620 feet.]	47 1,567	Sand, gray, and coal	5 918
Sandstone.	8 800	Sand.	53 1,620	Clay, gray, and shale	55 973
Sand (water-bearing).	12 812	Shale.	3 1,623	Sand, clay, and coal	10 983
Clay.	4 816	Fox Hills Sandstone:		Clay, gray.	10 993
Sandstone.	17 833	Milliken Sandstone Member:		Clay, gray, and coal	10 1,003
Sand (water-bearing).	3 836	Sand.	47 1,670	Sand, fine, gray.	4 1,007
Clay.	25 861	Sand and gray shale.	26 1,696	Shale, carbonaceous	
Sand (water-bearing).	9 870	Shale, gray.	51 1,747	and sandy.	21 1,028
Clay.	3 873	C4-68-27gbcg. Alt. 5,270 ft.		Sand, medium to coarse.	
Sand (water-bearing).	4 877	Dawson Formation (upper part):		gray.	5 1,033
Clay.	2 879	Clay, yellow.	13 13	Shale, sandy, gray.	10 1,043
C4-68-26ccc. Alt. 5,329 ft.		Shale, blue.	10 23	Sand, fine to medium	
Eolian sand:		C4-68-27dcb. Alt. 5,305 ft.		gray.	15 1,058
Topsoil.	3 3	Broadway Alluvium:		Shale, gray, in part	
Younger loess:		Sand.	2 2	sandy.	40 1,098
Clay, brown.	9 12	Soil.	19 21	Coal, carbonaceous shale,	
Slocum Alluvium:		Louviers Alluvium:		and gray sandy shale.	5 1,103
Sand.	16 28	Sand and boulders.	4 25	Shale, gray, carbonaceous,	
Dawson Formation (upper part):		Gravel and clay streaks.	9 34	and gray clay.	180 1,283
Clay, sandy, brown.	4 32	Dawson Formation (upper part):		Sand, fine, white.	4 1,287
Sandstone, brown.	4 36	Clay, blue.	29 63	Shale, gray, clay, and	
Sandstone, gray.	3 39	Clay, brown, and shale.	10 73	fine white sand.	26 1,313
Shale, gray.	30 69	Clay, blue, and gravel.	7 80	Sand, fine white [B sand-	
Sandstone, gray.	5 74	Sand and clay streaks.	18 98	stone, 1,313 to 1,410	
Shale, gray.	17 91	C4-68-28add. Alt. 5,248.9 ft.		feet.]	4 1,317
Shale, brown.	2 93	Topsoil and fill.	14 14	Shale and fine gray sand.	6 1,323
Sandstone, gray.	2 95	Louviers Alluvium:		Sand, fine, gray.	41 1,364
Shale, brown.	18 113	Sand.	16 30	Coal and sandy gray shale.	6 1,370
Sandstone, gray.	16 129	Gravel.	2 32	Sand, gray, in part sandy.	19 1,389
Shale, brown.	7 136	Dawson Formation:		Coal and gray shale.	31 1,420
Shale, gray.	6 142	Shale, blue.	1 33	Sandstone, fine, gray,	
Sandstone, gray.	53 195	C4-68-28dcd. Alt. 5,258.2 ft.		and gray carbonaceous	



Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C4-68-29daga. Alt. 5,400 ft.</b>		<b>C4-68-10cdda. ---Continued</b>		<b>C4-68-11addg. Alt. 5,286.2 ft.</b>	
Piney Creek Alluvium:		Dawson Formation (lower part):		Post-Piney Creek alluvium:	
Topsoil . . . . .	2	Sand, fine [Middle con-		Fill . . . . .	7
Clay . . . . .	16	glomerate, 476 to 626		Louviers Alluvium:	
Dawson Formation (upper part):		feet.) . . . . .	12	Sand, fine to medium,	
Shale, brown . . . . .	24	Shale, gray . . . . .	6	loose, subangular to	
Sand and shale . . . . .	108	Sand, fine . . . . .	16	subrounded, micaceous,	
Shale, sandy, blue and		Shale, blue . . . . .	10	grayish-orange . . . . .	5
brown, and, fine sand-		Shale, gray . . . . .	18	Silt, sandy, noncal-	
stone . . . . .	99	Shale, brown . . . . .	6	careous, micaceous,	
Sand, fine to medium . . . . .	9	Sand, fine . . . . .	1	grayish-orange . . . . .	13
Shale, blue . . . . .	30	Shale, gray . . . . .	15	Silt, sandy, very	
Sandstone, fine to		Sand, fine, and gray		calcareous, moderate-	
medium, very micaceous,		shale . . . . .	16	yellowish-brown;	
moderately consolidated;		Shale, gray . . . . .	27	contains montmoril-	
grains are subangular		Sand . . . . .	19	lonite . . . . .	4
to subrounded . . . . .	2	Shale, gray . . . . .	6	Sand and very fine to	
Shale, blue . . . . .	62	Lime . . . . .	4	fine gravel; arkosic.	
Sandstone, fine to		Shale, gray . . . . .	14	Silty . . . . .	13.5
medium, arkosic, and		Shale, sandy, gray . . . . .	10	Dawson Formation (upper part):	
fine sand . . . . .	4	Lower conglomerate:		Shale, silty, noncal-	
Shale, silty and slightly		Sand . . . . .	34	careous, limonite,	
sandy, gray . . . . .	16	Shale, sandy, gray . . . . .	8	light-olive-gray;	
Shale, and very fine		Sand . . . . .	6	contains montmoril-	
sandstone . . . . .	4	Sand, and gray shale . . . . .	22	lonite . . . . .	5
Shale, silty, sandy, gray		Shale, gray . . . . .	60		
Shale, silty, sandy, gray,		Sand, fine . . . . .	8		
and some light colored		Laramie Formation:			
clay . . . . .	10	Shale, gray, and mud-			
Shale, silty, sandy, gray;		stone . . . . .	4		
contains some very fine		Shale, gray . . . . .	52		
sandstone . . . . .	10	Shale, sandy, gray . . . . .	3		
Dawson Formation (lower part):		Shale, gray . . . . .	5		
Middle conglomerate:		Limestone . . . . .	2		
Sandstone, very micaceous,		Shale, gray . . . . .	91		
gray, thin limestone					
beds, and gray shale . . . . .	10				
Shale, silty and sandy,					
light-gray to pink . . . . .	10				
Sand, coarse, subangular,					
very micaceous; contains					
much biotite and gray					
clay and shale . . . . .	10				
Sand, fine to medium . . . . .	10				
Shale, gray, and thin					
arkosic sandstone beds . . . . .	10				
Shale, gray . . . . .	10				
Shale, gray, and sand . . . . .	10				
Shale, gray . . . . .	20				
Sand, fine, subangular					
to subrounded, slightly					
indurated sandstone, and					
gray shale . . . . .	10				
Shale, blue, hard . . . . .	30				
<b>C4-68-10cdda. Alt. 5,515 ft.</b>		<b>C4-68-11cddcb. Alt. 5,335.6 ft.</b>		<b>C4-68-11bddd. Alt. 5,268.2 ft.</b>	
Younger loess:		Post-Piney Creek alluvium:		Piney Creek Alluvium:	
Soil . . . . .	2	Sand and clay . . . . .	26	Silt, slightly sandy,	
Clay, sandy, brown . . . . .	31	Broadway Alluvium:		calcareous, dusky-	
Dawson Formation (upper part):		Sand, coarse . . . . .	2	yellow; contains	
Clay, yellow . . . . .	7	Louviers Alluvium:		montmorillonite be-	
Shale, brown . . . . .	3	Clay, blue . . . . .	3	tween 7.5 and 10 feet 14	
Sandstone, brown, and		Sand, coarse, and gravel . . . . .	5	Louviers Alluvium:	
brown shale . . . . .	19	Dawson Formation:		Gravel, very fine to fine,	
Sandstone, blue . . . . .	2	Shale, blue . . . . .	6	arkosic, subrounded	
Shale, brown . . . . .	5			to well-rounded, and	
Shale, gray . . . . .	7			coarse to very coarse	
Shale, brown . . . . .	16			sand . . . . .	6
Sandstone, gray . . . . .	4			Sand, medium to very	
Sandstone, blue . . . . .	3			coarse, arkosic, sub-	
Shale, gray . . . . .	4			angular to subrounded,	
Shale, blue . . . . .	7			and about 30 percent	
Shale, gray . . . . .	21			very fine to fine	
Sandstone, gray . . . . .	16			gravel . . . . .	2.5
Shale, brown . . . . .	6			Dawson Formation (upper part):	
Shale, blue . . . . .	2			Shale, silty, noncal-	
Shale, brown . . . . .	10			careous, pale-olive;	
Shale, gray . . . . .	4			contains montmoril-	
Shale, brown . . . . .	14			lonite . . . . .	5
Shale, blue . . . . .	9				
Shale, gray . . . . .	7				
Shale, brown . . . . .	5				
Shale, gray . . . . .	12				
Shale, blue . . . . .	8				
Shale, gray . . . . .	14				
Shale, brown . . . . .	6				
Shale, gray . . . . .	7				
Shale, blue . . . . .	8				
Shale, gray . . . . .	10				
Shale, blue . . . . .	11				
Sand [Upper conglomerate,					
286 to 301 feet.] . . . . .	6				
Shale, blue . . . . .	2				
Sand, coarse . . . . .	7				
Shale, gray . . . . .	5				
Shale, brown . . . . .	2				
Shale, gray . . . . .	7				
Shale, brown . . . . .	5				
Shale, gray . . . . .	23				
Sand . . . . .	6				
Shale, blue . . . . .	11				
Shale, gray . . . . .	20				
Shale, brown . . . . .	7				
Shale, gray . . . . .	91				
<b>C4-68-10cdda. Alt. 5,515 ft.</b>		<b>C4-68-11cddcb2. Alt. 5,470 ft.</b>		<b>C4-68-11cddca. Alt. 5,272.1 ft.</b>	
Younger loess:		Younger loess and Verdos		Post-Piney Creek alluvium:	
Alluvium, undifferentiated:		Alluvium, undifferentiated:		Sand, fine to very coarse,	
Surface, sand, and		Surface, sand, and		and gravel . . . . .	
gravel . . . . .		gravel . . . . .		Pre-Piney Creek alluvium and	
Dawson Formation (upper part):		Dawson Formation (upper part):		Broadway Alluvium, undif-	
Clay and shale . . . . .		Clay and shale . . . . .		ferentiated:	
Sandrock, hard . . . . .		Sandrock, hard . . . . .		Gravel, medium to very	
Clay and shale . . . . .		Clay and shale . . . . .		coarse; contains some	
Sandrock, hard . . . . .		Sandrock, hard . . . . .		cobble . . . . .	
Clay and shale . . . . .		Clay and shale . . . . .		Gravel, fine to medium,	
Sandrock, hard . . . . .		Clay and shale . . . . .		fairly well-sorted,	
Clay and shale . . . . .		Shale . . . . .		clean . . . . .	
Sandrock, hard . . . . .		Shale, tough . . . . .		Cobbles . . . . .	
Clay and shale . . . . .		Shale . . . . .		Sand . . . . .	
Sandrock, hard . . . . .		Clay and shale . . . . .		Louviers Alluvium:	
Clay and shale . . . . .		Sandrock, hard . . . . .		Sand, hard, saturated	
Sandrock, hard . . . . .		Clay and shale . . . . .		Sand, firm . . . . .	
Clay and shale . . . . .		Shale and rock . . . . .		Sand, loose . . . . .	
Shale . . . . .		Shale . . . . .		Sand, gravelly . . . . .	
Clay, tough . . . . .		Shale and rock . . . . .		Clay, gray . . . . .	
Shale . . . . .		Shale . . . . .		Cobbles . . . . .	
Clay and shale . . . . .		Shale . . . . .		Gravel, very fine to	
Sandrock, hard . . . . .		Clay and shale . . . . .		medium, clean . . . . .	
Clay and shale . . . . .		Sandrock [Middle conglom-		Dawson Formation (upper part):	
Sandrock [Middle conglom-		erate, 469 to 512		Shale, gray . . . . .	
erate, 469 to 512		feet.) . . . . .			
Shale . . . . .		Shale . . . . .			
Sandrock . . . . .		Sandrock . . . . .			
Shale . . . . .		Shale . . . . .			
Sand (water-bearing) . . . . .		Sand (water-bearing) . . . . .			
Shale . . . . .		Shale . . . . .			
Clay and shale . . . . .		Clay and shale . . . . .			
Sandrock . . . . .		Sandrock . . . . .			
Clay . . . . .		Clay . . . . .			
Shale . . . . .		Shale . . . . .			
Lower conglomerate:		Lower conglomerate:			
Sand (water-bearing) . . . . .		Sand (water-bearing) . . . . .			
Shale . . . . .		Shale . . . . .			
Sand (water-bearing) . . . . .		Sand (water-bearing) . . . . .			
Shale . . . . .		Shale . . . . .			
Sand (water-bearing) . . . . .		Sand (water-bearing) . . . . .			

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C4-68-13dbba. Alt. 5,269.2 ft.</b>					
Fill . . . . .	8				
Broadway and Louviers Alluvium, undifferentiated:					
Gravel, very fine to medium, arkosic, sub-rounded to rounded, and medium to very coarse sand; contains cobbles . . . . .	17				
Gravel, very fine to coarse, subangular to well-rounded, arkosic, loose, clean, and about 30 percent fine to very coarse sand; contains cobbles . . . . .	7.5				
Gravel, very fine to fine, well-sorted, arkosic, subangular to subrounded . . . . .	6				
Cobbles . . . . .	1				
Dawson Formation (upper part):					
Shale, very silty and sandy, noncalcareous, pale-yellowish-brown; contains montmorillonite . . . . .	3				
<b>C4-68-14acqd. Alt. 5,306.4 ft.</b>					
Eolian sand:					
Soil and fill . . . . .	1				
Broadway Alluvium:					
Sand and gravel . . . . .	2				
Broadway and Louviers Alluvium, undifferentiated:					
Gravel, fine, sand, and cobbles . . . . .	13				
Louviers Alluvium:					
Gravel, very fine to medium, arkosic, sub-rounded to rounded . . . . .	5				
Cobbles . . . . .	5				
Dawson Formation (upper part):					
Shale, yellowish-green . . . . .	1.5				
<b>C4-68-14cbag. Alt. 5,302.8 ft.</b>					
Piney Creek Alluvium:					
Silt, dark-yellowish-brown; contains montmorillonite . . . . .	7				
Broadway Alluvium:					
Gravel, very fine to medium, silty, arkosic, subangular to rounded . . . . .	10				
Louviers Alluvium:					
Sand, medium to very coarse, subangular to rounded, arkosic, cobbles, boulders, and clay . . . . .	9				
Dawson Formation (upper part):					
Sand, poorly sorted, and grayish-orange non-calcareous silt . . . . .	6.5				
Silt, slightly sandy, calcareous, dusky-yellow . . . . .	23.5				
Shale, silty and sandy, hard calcareous, light-olive; contains montmorillonite, at 56 feet.					
<b>C4-68-14daab. Alt. 5,371.3 ft.</b>					
Eolian sand:					
Soil and fill . . . . .	2				
Sand, clayey . . . . .	5.5				
Slocum Alluvium:					
Clay, sandy, compact . . . . .	4.5				
Gravel, fine, arkosic, subangular to sub-rounded, and coarse sand; decrease in sand 17.5 to 22.5 feet; very clean fine gravel 22.5 to 27.5 feet . . . . .	15.5				
Dawson Formation:					
Sandstone, very silty, arkosic, pale-yellowish-brown . . . . .	5.5				
<b>C4-68-16dddb. Alt. 5,480 ft.</b>					
Younger loess:					
Soil . . . . .	1				
Clay, sandy, yellow . . . . .	13				
Clay, sandy, gray . . . . .	5				
Dawson Formation (upper part):					
Clay, yellow . . . . .	22				
Sandstone, gray . . . . .	34				
Shale, brown . . . . .	6				
Shale, gray . . . . .	14				
Shale, blue . . . . .	4				
Shale, gray . . . . .	5				
Shale, blue . . . . .	2				
<b>C4-68-16dddb.--Continued</b>					
Shale, brown . . . . .	3	109			
Sandstone, gray . . . . .	5	114			
Sandstone, blue . . . . .	6	120			
Shale, brown . . . . .	7	127			
Sandstone, gray . . . . .	19	146			
Sandstone, brown . . . . .	3	149			
Shale, blue . . . . .	1	152			
Shale, gray . . . . .	4	156			
Shale, brown . . . . .	8	164			
Shale, gray . . . . .	4	168			
Sandstone, brown, and shale . . . . .	14	182			
Sandstone, blue . . . . .	4	186			
Sandstone, gray . . . . .	9	195			
Sandstone, brown . . . . .	1	198			
Sandstone, blue . . . . .	7	205			
Shale, brown . . . . .	6	211			
Shale, gray and brown . . . . .	63	274			
Shale, sandy, gray . . . . .	4	278			
Shale, blue and brown, and sandstone . . . . .	57	335			
Shale, gray . . . . .	35	370			
Sandstone, gray . . . . .	11	381			
Shale, gray . . . . .	22	403			
Shale, brown . . . . .	4	407			
Shale, gray . . . . .	41	448			
Shale, sandy, gray . . . . .	4	452			
Shale, brown . . . . .	8	460			
Shale, gray . . . . .	8	468			
Sandstone, gray . . . . .	14	482			
Shale, brown . . . . .	3	485			
Sandstone, gray . . . . .	14	499			
Shale, gray . . . . .	76	575			
Sand . . . . .	6	581			
Shale, gray . . . . .	94	675			
Sand . . . . .	10	685			
Lime . . . . .	1	686			
Shale, gray . . . . .	133	819			
Shale, gray, and fine sand, in layers . . . . .	8	827			
Shale, gray . . . . .	9	836			
Sand, fine and gray shale . . . . .	7	843			
Shale, gray . . . . .	19	862			
Dawson Formation (lower part):					
Sand, coarse [Middle conglomerate, 860 to 960 feet] . . . . .	6	866			
Shale, gray . . . . .	24	892			
Sand, fine to medium . . . . .	35	927			
Shale, gray . . . . .	23	950			
Sand, fine . . . . .	10	960			
Shale, gray . . . . .	16	996			
Shale, gray, and fine sand, in layers . . . . .	42	1,038			
Shale, gray . . . . .	74	1,112			
Lower conglomerate:					
Sand, silty . . . . .	6	1,118			
Shale . . . . .	58	1,176			
Shale, sandy, gray . . . . .	52	1,228			
Sand, fine, and sandstone . . . . .	42	1,270			
Shale, gray, and silty sandstone . . . . .	39	1,309			
Sand, fine, and gray shale . . . . .	18	1,327			
Shale, gray . . . . .	38	1,365			
Sand, fine, silty, and gray shale, interbedded . . . . .	31	1,396			
Laramie Formation:					
Shale, gray . . . . .	162	1,558			
Coal blossom . . . . .	4	1,562			
Shale, gray . . . . .	36	1,598			
Coal . . . . .	9	1,607			
Shale, gray and brown . . . . .	49	1,656			
Shale, gray . . . . .	22	1,678			
Shale, gray, and coal sand, fine, and gray shale [8 sandstone, 1,698 to 1,756 feet] . . . . .	58	1,756			
Shale, gray, and coal . . . . .	23	1,779			
Shale, gray . . . . .	34	1,813			
A sandstone:					
Sand, fine, and gray shale . . . . .	58	1,871			
Shale, gray . . . . .	4	1,875			
Shale, gray, and fine sand . . . . .	21	1,896			
Fox Hills Sandstone:					
Milliken Sandstone Member:					
Sand, fine, and gray shale . . . . .	46	1,942			
Shale, gray . . . . .	46	1,988			
Transition zone:					
Sand, fine . . . . .	16	2,004			
Shale, gray . . . . .	8	2,012			
Sand, fine . . . . .	2	2,014			
Shale, gray . . . . .	13	2,027			
<b>C4-69-1bda. Alt. 5,360 ft.</b>					
Piney Creek Alluvium:					
Topsoil . . . . .	10	10			
<b>C4-69-1bda.--Continued</b>					
Slocum Alluvium:					
Surface soil . . . . .	4	4			
Sand, medium to coarse (water-bearing) . . . . .	19	23			
Dawson Formation (upper part):					
Shale, hard, gray . . . . .	12	15			
Sand, medium (water-bearing) . . . . .	8	43			
Shale, hard, blue . . . . .	22	65			
Shale, gray . . . . .	25	90			
Shale, hard, gray . . . . .	55	145			
Shale, brown . . . . .	8	153			
Sand, hard . . . . .	2	155			
Shale, sandy, light-gray . . . . .	10	165			
Shale, hard, blue . . . . .	45	210			
Sand, fine, hard . . . . .	5	215			
Shale, hard, blue . . . . .	15	230			
Shale, sandy, blue . . . . .	25	255			
Shale, blue . . . . .	60	315			
Dawson Formation (lower part):					
Shale; contains streaks of sand [Middle conglomerate, 315 to 401 feet] . . . . .	10	325			
Shale, hard, blue . . . . .	30	355			
Sand, coarse, vari-colored (water-bearing) . . . . .	10	365			
Shale, blue . . . . .	5	370			
Sand, fine (water-bearing) . . . . .	15	385			
Shale, sandy, hard . . . . .	8	393			
Sand, medium, shaly, very hard . . . . .	14	407			
Shale, hard, blue . . . . .	48	455			
Shale, sandy, gray; contains thin streaks of sand . . . . .	90	545			
Shale, hard, blue . . . . .	10	555			
Lower conglomerate:					
Sand, fine to medium (water-bearing) . . . . .	15	590			
Shale, blue . . . . .	7	597			
Sand, fine to medium; contains streaks of shale . . . . .	46	643			
Shale, hard, blue . . . . .	42	685			
<b>C4-69-1dbcc. Alt. 5,470 ft.</b>					
Piney Creek Alluvium:					
Fill . . . . .	1	1			
Soil . . . . .	2	3			
Younger loess:					
Clay, yellow . . . . .	11	14			
Slocum Alluvium:					
Gravel and sand . . . . .	5	19			
Dawson Formation (upper part):					
Clay, yellow . . . . .	17	36			
Shale, gray . . . . .	14	50			
Shale, blue . . . . .	4	54			
Shale, gray . . . . .	98	152			
Sandstone, gray . . . . .	15	167			
Shale, gray . . . . .	2	169			
Sandstone, gray . . . . .	18	187			
Shale, gray . . . . .	9	196			
Sandstone, gray . . . . .	4	200			
Shale, gray . . . . .	12	212			
Shale, blue . . . . .	5	217			
Shale, gray . . . . .	14	231			
Sandstone, gray . . . . .	9	240			
Shale, gray . . . . .	30	270			
Dawson Formation (lower part):					
Shale, gray, and sandstone [Middle conglomerate, 270 to 392 feet] . . . . .	65	335			
Sand, fine, and gray shale . . . . .	11	346			
Sand, and gray shale . . . . .	46	392			
Limestone, gray, and shale . . . . .	132	524			
Lime, sandy . . . . .	1	525			
Lower conglomerates:					
Sand, fine to medium . . . . .	40	565			
Shale, gray . . . . .	38	603			
Sand, fine to medium . . . . .	17	640			
Shale, gray . . . . .	10	650			
<b>C4-69-1bcbh. Alt. 5,600 ft.</b>					
Slocum Alluvium:					
Clay . . . . .	18	18			
Dawson Formation (upper part):					
Shale, sandy, hard . . . . .	18	36			
Shale . . . . .	20	56			
Shale, sandy . . . . .	28	84			
Shale . . . . .	16	100			

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C4-69-9acab. Alt. 5,595 ft.</b>					
Siocum Alluvium:					
Topsoil, silty. . . . .	11				
Dawson Formation (upper part):					
Shale, sandy, weathered	13				
Shale, moderately hard,					
very micaceous; con-					
tains thin layers of					
dirty sandstone	12				
Shale, hard, brown					
and buff; contains					
a few thin sandstone					
layers.	24				
Sandstone, very fine,					
dirty; contains some					
shale (water-bearing)	16				
Shale, slightly sandy,					
gray, brown, and					
buff.	16				
<b>C4-69-10dcab. Alt. 5,532 ft.</b>					
Siocum Alluvium:					
Soil. . . . .	2				
Clay, sandy, yellow	9				
Dawson Formation (upper part):					
Sandstone, brown. . . . .	11				
Shale, sandy, brown	10				
Shale, brown. . . . .	7				
Shale, gray. . . . .	8				
Sandstone, gray. . . . .	43				
Shale, gray. . . . .	14				
Shale, blue. . . . .	4				
Shale, gray. . . . .	28				
Shale, brown. . . . .	3				
Sandstone, gray. . . . .	18				
Shale, gray, and sand-					
stone. . . . .	14				
Sandstone, gray. . . . .	27				
Shale, gray. . . . .	22				
Sandstone, gray. . . . .	7				
Shale, gray. . . . .	63				
Sandstone, gray. . . . .	20				
Shale, gray. . . . .	11				
Sandstone, gray, and					
shale. . . . .	36				
Shale, gray. . . . .	8				
Dawson Formation (lower part):					
Sand (Middle conglomerate,					
290 to 496 feet.)	11				
Shale, gray. . . . .	9				
Sand, and gray shale	16				
Shale, gray. . . . .	33				
Sand. . . . .	29				
Shale, gray. . . . .	5				
Sand. . . . .	7				
Shale, gray. . . . .	9				
Sand, and gray shale	12				
Lime. . . . .	2				
Shale, gray. . . . .	72				
Lower conglomerate:					
Sand. . . . .	11				
Lime, sandy. . . . .	5				
Shale, sandy, gray.	47				
Lime. . . . .	1				
Sand. . . . .	16				
Laramie Formation:					
Shale, gray. . . . .	53				
Shale, gray, and					
mudstone. . . . .	32				
Shale, gray, mudstone					
and coal blossom.	7				
Shale, gray, and mud-					
stone. . . . .	40				
Shale, brown. . . . .	8				
Shale, gray. . . . .	122				
Shale, brown. . . . .	4				
Shale, gray. . . . .	31				
Lime. . . . .	1				
Shale, gray. . . . .	18				
Sand. . . . .	12				
Lime, sandy. . . . .	4				
Shale, gray. . . . .	208				
Shale, sandy, gray					
and brown. . . . .	110				
Shale, gray. . . . .	31				
Lime. . . . .	1				
Coal, and gray shale	33				
Lime. . . . .	3				
Shale, gray, and mud-					
stone. . . . .	28				
Sand, fine (B sandstone,					
1,196 to 1,471 feet.)	75				
Coal, gray shale, and					
mudstone. . . . .	41				
A sandstone:					
Shale, sandy, gray.	46				
Pox Hills Sandstone:					
Sand, shaly (Milliken					
sandstone Member,					
1,558 to 1,620					
feet.)	62				
Shale, gray, and					
sand. . . . .	40				
<b>C4-69-10ddcd. Alt. 5,538 ft.</b>					
Siocum Alluvium:					
Topsoil, gumbo, and					
clay. . . . .	12				
Dawson Formation (upper part):					
Clay. . . . .	12				
Shale, brown. . . . .	11				
Shale, blue. . . . .	5				
Coal, and shale. . . . .	5				
Shale, blue; contains					
streaks of sandstone					
(Water in sandstone					
insufficient for					
drilling.)	29				
Shale, blue. . . . .	11				
Shale, black and blue;					
contains sandstone					
streaks. . . . .	48				
Upper conglomerate:					
Sand, coarse (water-					
bearing). . . . .	18				
Shale, black, very					
hard. . . . .	17				
<b>C4-69-12ddca. Alt. 5,416 ft.</b>					
Siocum Alluvium:					
Clay. . . . .	4				
Clay and alkali. . . . .	3				
Loam and fine sand.	6				
Gravel, coarse, heavy	4				
<b>C4-69-14dcbb. Alt. 5,473 ft.</b>					
Colluvium and Dawson Formation,					
undifferentiated:					
Shale, hard. . . . .	40				
Dawson Formation (upper part):					
Sand, fine to coarse,					
gravelly, and shale					
(Upper conglomerate,					
40 to 130 feet.)	30				
Shale and sand. . . . .	45				
Sandstone, fine to					
medium, white. . . . .	5				
Sand, coarse, gravelly	10				
Shale, sandy. . . . .	50				
Sand and thin shale					
beds. . . . .	60				
Shale, gray, coarse					
sand, and traces of					
coal. . . . .	10				
Shale. . . . .	16				
Dawson Formation (lower part):					
Sandstone, sand, and					
shale (Middle conglom-					
erate, 260 to 550					
feet.)	78				
Sand, medium to coarse	4				
Shale. . . . .	23				
Sand, fine to medium	5				
Sandstone; contains					
shale streaks. . . . .	70				
Sand, coarse, and small					
gravel. . . . .	75				
Shale, sandy. . . . .	25				
Sand, coarse, and					
gravel. . . . .	10				
Shale, sandy. . . . .	70				
Lower conglomerate:					
Sand, coarse, and gravel	20				
Shale, sandy. . . . .	32				
Sand, fine, shaly. . . . .	16				
Laramie Formation:					
Shale, gray. . . . .	142				
Clay, brown. . . . .	10				
Shale, gray; contains					
streaks of dirty					
sand, sandstone,					
and coal. . . . .	348				
Sandstone, fine. . . . .	4				
Coal and sandstone.	8				
Shale, gray; contains					
streaks of coal.	30				
Sandstone, hard, white;					
contains streaks of					
coal. . . . .	86				
Sandstone, fine (B					
sandstone, 1,376 to					
1,452 feet.)	76				
Shale. . . . .	4				
Coal. . . . .	2				
A sandstone:					
Shale and silty sand-					
stone. . . . .	22				
Sandstone, fine;					
contains streaks of					
coal. . . . .	104				
Shale, gray; contains					
streaks of sand. . . . .	12				
Pox Hills Sandstone:					
Milliken Sandstone Member:					
Sandstone, fine, soft;					
contains streaks of					
gray shale and a thin					
hard limestone layer	104				
<b>C4-69-14dcbb2.--Continued</b>					
Transition zone:					
Shale, silty. . . . .	36				
Sand, silty; contains					
a thin, hard lime-					
stone layer. . . . .	15				
<b>C4-69-15dddb. Alt. 5,555 ft.</b>					
Colluvium:					
Topsoil. . . . .	4				
Dawson Formation (upper part):					
Shale, brown. . . . .	9				
Sandstone, brown. . . . .	8				
Shale, gray, hard. . . . .	3				
Shale, blue. . . . .	28				
Sandstone, gray, hard	28				
Shale, gray. . . . .	56				
Shale, blue. . . . .	43				
Sandstone, very hard,					
conglomeratic; contains					
basalt fragments coated					
with purplish black					
manganese oxide (Upper					
conglomerate, 179 to					
183 feet.)	4				
Shale, blue. . . . .	14				
Shale, gray. . . . .	55				
Sandstone. . . . .	4				
Shale, sandy, gray. . . . .	9				
Sandstone, hard. . . . .	4				
Dawson Formation (lower part):					
Middle conglomerate:					
Sand. . . . .	8				
Shale, blue. . . . .	9				
Sandstone. . . . .	24				
Shale. . . . .	15				
Sandstone. . . . .	15				
Shale. . . . .	24				
<b>C4-69-17dadd. Alt. 5,5785 ft.</b>					
Dawson Formation (upper part):					
Soil. . . . .	2				
Clay, sandy, brown. . . . .	3				
Clay, brown. . . . .	14				
Clay, gray. . . . .	2				
Clay, yellow. . . . .	11				
Shale, gray, and sand-					
stone. . . . .	4				
Sandstone, gray. . . . .	11				
Shale, blue. . . . .	3				
Shale, sandy, gray. . . . .	4				
Sandstone, gray. . . . .	15				
Shale, gray. . . . .	9				
Sandstone, gray. . . . .	8				
Shale, gray. . . . .	5				
Shale, brown. . . . .	3				
Shale, blue. . . . .	4				
Shale, gray. . . . .	6				
Shale, brown. . . . .	4				
Shale, blue. . . . .	4				
Shale, brown. . . . .	3				
Sandstone. . . . .	9				
Shale, brown. . . . .	3				
Sandstone, gray. . . . .	6				
Shale, gray. . . . .	5				
Shale, brown. . . . .	3				
Sandstone, gray. . . . .	13				
Shale, blue. . . . .	2				
Sandstone, blue. . . . .	13				
Sandstone, gray. . . . .	15				
Shale, gray. . . . .	3				
Shale, brown. . . . .	4				
Shale, gray. . . . .	14				
Sandstone, gray. . . . .	3				
Shale, gray. . . . .	16				
Sandstone, blue					

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C4-69-17dadd.--Continued</b>		<b>C4-69-24sddc.--Continued</b>		<b>C4-69-25sadd.--Continued</b>	
Shale, sandy, gray and sandstone. . . . .	27 668	Sand (water-bearing). . . . .	10 805	Lower conglomerate:	
Shale, gray. . . . .	15 683	Laramie Formation:		Sand. . . . .	18 408
Lime, sandy. . . . .	1 684	Lime, shell. . . . .	10 815	Clay. . . . .	18 446
Sand, fine, and gray shale. . . . .	14 698	Shale, gray. . . . .	280 1,095	Sand. . . . .	26 472
Sand and gray shale. . . . .	25 723	Coal. . . . .	1 1,096	Clay. . . . .	14 486
Sandstone, gray, and shale. . . . .	113 816	Shale, brown. . . . .	49 1,145	Sand. . . . .	20 506
Shale, blue. . . . .	6 842	Shale, gray. . . . .	55 1,200		
Shale, gray. . . . .	20 862	Shale, brown. . . . .	102 1,302	<b>C4-69-25bbbc2. Alt. 5,461.7 ft.</b>	
Shale, brown. . . . .	11 873	Lime, shell. . . . .	5 1,307	Piney Creek Alluvium:	
Lime. . . . .	1 874	Shale, gray. . . . .	38 1,345	Fill. . . . .	2 2
Lower conglomerate:		Shale, brown. . . . .	15 1,360	Sand, clayey. . . . .	1 3
Sand, fine, and gray shale. . . . .	21 895	Sand [B sandstone, 1,360 to 1,473 feet.] (water rose to within 200 feet of surface). . . . .	113 1,473	Slocum Alluvium:	
Shale, gray. . . . .	41 936	Sand [A sandstone, 1,610 to 1,685 feet.] (water- bearing, well flowed at surface). . . . .	75 1,685	Sand, fine to coarse, clayey; contains medium gravel. . . . .	2.5 5.5
Lime. . . . .	1 937	Shale, gray. . . . .	36 1,721	Clay, fine, sandy, silty, humic. . . . .	3.5 "
Shale, gray. . . . .	41 978	Fox Hills Sandstone:		Sand, fine to coarse; contains gravel. . . . .	1.5 9.5
Mudstone. . . . .	1 979	Milliken Sandstone Member:		Clay, sandy, brown. . . . .	3 12.5
Laramie Formation:		Sand (heavy flow of water). . . . .	10 1,731	Dawson Formation:	
Shale, gray, and mudstone. . . . .	323 1,302	Sand. . . . .	70 1,801	Shale, clay, weathered, brown. . . . .	1.5 14
Sand, fine. . . . .	12 1,314	Transition zone:		Shale, clay, brown. . . . .	4.5 18.5
Mudstone. . . . .	1 1,315	Lime, shells. . . . .	6 1,807		
Shale, light-brown. . . . .	14 1,329	Shale, gray. . . . .	74 1,881	<b>C4-69-25bcbg. Alt. 5,470 ft.</b>	
Shale, gray. . . . .	185 1,514	Sand (water-bearing) (show of gas at 1,910 feet). . . . .	50 1,931	Piney Creek Alluvium:	
Sand, fine, and gray shale. . . . .	68 1,582	Sand, gray. . . . .	736 2,667	Topsoil. . . . .	5 5
Shale, gray. . . . .	65 1,647	Sand (water-bearing). . . . .	2 2,669	Dawson Formation (upper part):	
Coal. . . . .	9 1,656	Shale, gray. . . . .	771 3,440	Sandstone, brown. . . . .	3 8
Shale, gray, and coal. . . . .	14 1,670	Shale, sandy, gray. . . . .	5 3,445	Shale. . . . .	6 14
Coal and fine sand. . . . .	5 1,675			Shale, blue. . . . .	2 16
Sand, fine [B and A sandstones, undif- ferentiated, 1,690 to 1,870 feet.]. . . . .	94 1,869	<b>C4-69-24dadd. Alt. 5,436 ft.</b>		Shale, brown. . . . .	2 18
Fox Hills Sandstone:		No sample. . . . .	185 185	Shale, blue. . . . .	16 34
Shale, gray (Milliken Sandstone Member, 1,903 to 1,979 feet.). . . . .	85 1,954	Dawson Formation (upper part):		Sandstone. . . . .	3 37
Sand, fine. . . . .	25 1,979	Shale, gray. . . . .	10 195	Sandstone, gray. . . . .	20 57
Shale, gray. . . . .	18 1,997	Swamp dirt, oily, and rotten egg water. . . . .	10 205	Sandstone, brown. . . . .	13 70
<b>C4-69-23ccag. Alt. 5,560 ft.</b>		Shale, gray. . . . .	40 245	Sandstone, gray. . . . .	9 79
Slocum Alluvium:		Sandstone. . . . .	15 260	Shale, brown. . . . .	6 85
Clay, brown. . . . .	17 17	Shale, gray. . . . .	25 285	Sandstone, gray. . . . .	20 105
Dawson Formation (upper part):		Shale, sandy. . . . .	23 308	Shale, gray. . . . .	13 118
Sandrock, blue. . . . .	29 46	Dawson Formation (lower part):		Shale, blue. . . . .	12 130
Shale, blue. . . . .	119 165	Middle conglomerate:		Shale, brown. . . . .	23 155
Sandstone. . . . .	8 173	Sandstone. . . . .	3 311	Shale, gray. . . . .	19 194
Shale, blue. . . . .	27 200	Shale, blue. . . . .	3 314	Shale, sandy, brown. . . . .	5 199
Sand, blue. . . . .	20 220	Sandstone. . . . .	24 338	Clay, blue. . . . .	11 210
Shale, blue. . . . .	47 267	Shale. . . . .	7 345	Shale, gray. . . . .	28 238
Dawson Formation (lower part):		Sandstone. . . . .	55 400		
Sand, blue, and thin beds of shale [Middle conglomerate, 267 to 193 feet.]. . . . .	57 324	Shale. . . . .	25 425	Sandstone, gray [Middle conglomerate, 238 to 195 feet.]. . . . .	7 245
Shale, blue. . . . .	27 351	Sand and shale layers; bottom 40 feet contains coarse sand. . . . .	65 490	Shale, gray. . . . .	16 281
Sand and sandstone. . . . .	42 393	<b>C4-69-25saga. Alt. 5,438 ft.</b>		Limestone. . . . .	1 282
Shale and silt. . . . .	55 448	Dawson Formation (upper part):		Sandstone and shale, in alternate layers. . . . .	18 300
Lower conglomerate:		Shale, brown. . . . .	12 12	Shale, gray. . . . .	88 388
Sand, blue, and shale. . . . .	27 475	Sandrock, blue. . . . .	43 55	Sandstone, coarse. . . . .	7 395
Shale, blue. . . . .	9 484	Shale, blue-gray, and clay. . . . .	14 69	Shale, gray. . . . .	23 418
Sand and streaks of shale. . . . .	19 503	Clay, blue-gray. . . . .	23 92	Shale, sandy, brown. . . . .	7 425
Shale, blue. . . . .	5 508	Sandrock. . . . .	1 95	Shale, gray. . . . .	12 437
Sand and streaks of shale. . . . .	14 542	Clay, gray. . . . .	5 100	Shale, blue. . . . .	25 462
<b>C4-69-24sddc. Alt. 5,445 ft.</b>		Clay, gray. . . . .	3 103	Lower conglomerate:	
Younger loess:		Sandrock. . . . .	22 125	Sand, fine, white, and shale, in alternate layers. . . . .	20 482
Clay. . . . .	16 16	Clay, blue-gray. . . . .	22 125	Shale, gray. . . . .	24 506
Slocum Alluvium:		<b>C4-69-25sadd. Alt. 5,458 ft.</b>		Sand, fine. . . . .	12 518
Gravel. . . . .	5 21	Younger loess:		Shale, gray. . . . .	4 522
Dawson Formation (upper part):		Clay, brown. . . . .	38 38	Sand, coarse. . . . .	16 538
Shale, brown. . . . .	35 56	Dawson Formation (upper part):		Shale, gray. . . . .	9 547
Sand, gray. . . . .	4 60	Sandstone, gray		Lime. . . . .	2 549
Shale, brown. . . . .	13 75	(Upper conglomerate, 18 to 119 feet.). . . . .	57 95	Shale, gray. . . . .	11 560
Shale, gray. . . . .	115 190	Sandstone, blue. . . . .	24 119	Sand and shale, in alternate layers. . . . .	20 580
Shale, brown. . . . .	28 218	Clay, blue. . . . .	16 135	Sand, fine, white. . . . .	15 595
Shale, sandy. . . . .	72 290	Clay, blue; contains sandstone streaks. . . . .	25 160	Shale, gray. . . . .	5 600
Dawson Formation (lower part):		Clay, blue. . . . .	55 215	Sand. . . . .	15 615
Sand, gravel, and conglomerate [Middle conglomerate, 290 to 401 feet.]. . . . .	15 305	Clay, blue; contains sandstone streaks. . . . .	25 240	Laramie Formation:	
Shale, gray. . . . .	86 391	Dawson Formation (lower part):		Shale, gray. . . . .	85 700
Sand (water-bearing). . . . .	10 401	Sandstone, sand, and clay [Middle conglomerate, 240 to 335 feet.]. . . . .	44 284	<b>C4-69-25cchb. Alt. 5,550 ft.</b>	
Shale, sandy. . . . .	76 477	Sand. . . . .	5 289	Younger loess:	
Shale, gray. . . . .	54 531	Clay. . . . .	23 312	Soil. . . . .	9 9
Lower conglomerate:		Clay; contains sand streaks. . . . .	23 335	Dawson Formation (upper part):	
Shale, sandy. . . . .	24 555	Clay. . . . .	55 390	Shale, clayey, yellow. . . . .	11 20
Lime, shell. . . . .	5 560			Sand, concretions, and conglomerate [Upper conglomerate, 20 to 150 feet.]. . . . .	30 50
Shale, gray. . . . .	80 640			Sand, coarse, and conglomerate. . . . .	10 60
Shale, sandy. . . . .	75 715			Shale, gray and brown. . . . .	20 80
Shale, gray. . . . .	80 795			Sand. . . . .	10 90
				Sand, shaly. . . . .	20 110
				Sand; clay cementing. . . . .	10 120
				Clay, sandy, gray and dark-gray. . . . .	20 140
				Sand. . . . .	10 150
				Clay, sandy, gray and brown. . . . .	40 190

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C4-69-25cbbh. --Continued</b>		<b>C4-69-25cbbh. --Continued</b>		<b>C4-69-27ddcg. --Continued</b>	
Shale, and arkosic		Shale, sandy, gray,		Shale, silty, sandy,	
gray sand . . . . .	10	and coal . . . . .	40	micaceous, pale-	
Shale, sandy, gray. . .	10	Sand, 75 percent; 10	1,360	yellowish-brown;	
Shale, clay; greenish-		percent red shale;		contains mont-	
gray. . . . .	30	15 percent green	1,370	morillonite, small	
Shale, clayey; contains		shale. . . . .	10	limonite concretions,	
35 percent sand . . .	10	Shale, sandy, gray;	1,380	and thin seams of	
Shale, clayey, sandy,		and coal . . . . .	1,390	carbonaceous	
gray. . . . .	10	Shale, sandy, gray,		material. . . . .	2 17.5
Shale; contains 50		and coal . . . . .	1,420		
percent sand. . . . .	10	Sand, fine, gray;		<b>C4-69-28adcd. Alt. 5,650 ft.</b>	
Dawson Formation (lower part):		contains 35 percent		Dawson Formation (upper	
Sand [Middle conglom-		shale. . . . .	1,438	part):	
erate, 270 to 380		Lime, shells . . . . .	1,439	Conglomerate [Upper	
feet.] . . . . .	20	Shale, light-gray; 15		conglomerate,	
Clay, sandy, light-		percent sand; 5		surface to 211	
gray. . . . .	10	percent coal . . . .	1,490	feet.] . . . . .	20 20
Shale, clayey, gray. .	10	Shale, gray to black,		Sandstone, blue . . . .	28 48
Sand and conglomerate	20	and coal . . . . .	1,525	Shale, green. . . . .	8 50
Clay, sandy, gray and		Sand, dark-gray. . .	1,557	Sandstone, blue . . . .	9 65
dark-gray . . . . .	20	Sand, and 50 percent		Clay, sandy, gray . . .	20 85
Sand. . . . .	20	shale. . . . .	1,572	Sandstone . . . . .	13 98
Sand; contains 50		Sand, contains a little		Shale, sandy, brown . .	7 105
percent gray shale. .	10	shale, and coal. . .	1,635	Shale, blue . . . . .	5 110
Shale, clayey, sandy. .	70	Shale, and 50 percent		Clay, sandy, brown. . .	10 140
Shale, sandy, dark-		sand . . . . .	1,660	Shale and clay; blue. .	16 156
gray. . . . .	20	B sandstone:		Shale, sandy, blue. . .	4 160
Shale, clayey, dark-		Sand, 90 percent; 10		Shale and clay; blue	
gray. . . . .	20	percent shale. . . .	1,720	and gray. . . . .	10 170
Shale, sandy, dark-		A sandstone:		Shale, blue . . . . .	3 173
gray. . . . .	10	Sand and 50 percent		Shale and clay;	
Shale, clayey, greenish-		shale. . . . .	1,735	brownish-blue . . . .	7 180
gray. . . . .	40	Shale, 85 percent; 15		Shale, sandy. . . . .	8 188
Shale, sandy, gray. . .	10	percent sand, and		Sandrock. . . . .	9 197
Lower conglomerate:		coal . . . . .	1,817	Shale, brown and gray .	3 200
Sand, gray. . . . .	10	Fox Hills Sandstone:		Sandrock. . . . .	11 211
Sand, shaly, gray. . .	10	Milliken Sandstone Member:		Shale, hard, brownish-	
Shale, clayey, gray. .	10	Sand, brownish-gray,		blue. . . . .	4 215
Shale, clayey, sandy,		95 percent, limonite,		Shale and clay; blue-	
dark-gray . . . . .	10	and mica . . . . .	1,885	gray. . . . .	45 260
Shale, sandy, gray		Transition zone:		Shale, blue . . . . .	8 268
and brown . . . . .	40	Shale, gray. . . . .	1,940	Shale and clay; brown	
Conglomerate; contains		Sand, 90 percent; 10		and gray. . . . .	22 290
35 percent shale. . .	10	percent shale. . . .	1,962	Shale, brown; contains	
Shale, brown and gray .	10			fine sand . . . . .	11 301
Conglomerate; contains		<b>C4-69-27cbbh. Alt. 5,600 ft.</b>		Sandstone, silty, hard.	11 312
10 percent brown and		Dawson Formation (upper		Shale and clay; blue. .	8 320
gray shale. . . . .	10	part):		Shale, brown and gray .	3 323
Shale, sandy, gray;		Topsoil. . . . .	2	Shale, blue, and clay .	30 353
contains limonite . .	100	Clay, brown to		Sandstone . . . . .	3 356
Shale, slightly sandy,		yellow . . . . .	18	Shale and clay; blue. .	63 419
gray, and limonite. .	20	Shale, medium hard,		Dawson Formation (lower	
Laramie Formation:		gray to blue . . . .	330	part):	
Shale, sandy, hard,		Dawson Formation (lower		Sandstone, very fine-	
gray. . . . .	10	part):		grained [Middle	
Shale, sandy, limy,		Sandstone, interbedded		conglomerate, 419	
gray. . . . .	10	with thin shale		to 496 feet.] . . . .	2 421
Shale, limy, hard,		stringers [Middle		Shale, gray . . . . .	5 426
gray. . . . .	20	conglomerate, 350		Sandstone, fine-	
Sand, shaly, gray		to 500 feet.] . . .	150	grained . . . . .	15 441
(water-bearing) . . .	10	Shale. . . . .	535	Shale and clay; gray. .	26 467
Shale, sandy, gray. . .	10	Sandstone. . . . .	568	Sandstone . . . . .	5 472
Shale, limy, gray . . .	10	Shale. . . . .	590	Shale and clay; gray. .	8 480
Shale, sandy, gray. . .	20	Lower conglomerate:		Sandstone, fine-	
Shale, sandy, gray;		Sandstone; contains		grained . . . . .	16 496
contains coal . . . .	10	thin shale layers. .	70	Clay and shale; blue. .	4 500
Shale, sandy, gray to		Shale. . . . .	666	Shale, hard, gray . . .	7 507
dark-gray . . . . .	40			Shale, sandy, gray. . .	9 516
Shale, sandy, gray,		<b>C4-69-27ddbb. Alt. 5,481.8 ft.</b>		Sandstone . . . . .	3 519
carbonaceous, and		Colluvium:		Shale, gray . . . . .	17 536
limonite. . . . .	10	Silt, gravelly, non-		Shale, very sandy, hard;	
Shale, sandy, gray,		calcareous, dark-		contains fine sand. .	17 553
and limonite. . . . .	10	yellowish-brown. . .	10	Rock, very hard, blue .	1 554
Shale, sandy, light-		Dawson Formation (upper		Clay, blue, and shale .	9 563
gray. . . . .	10	part):		Lower conglomerate:	
Shale, sandy, light-		Silt, sandy, non-		Sand and shale, in	
to dark-gray. . . . .	70	calcareous, pale-		streaks . . . . .	7 570
Shale, sandy, gray		yellowish-orange;		Sandstone, hard . . . .	6 576
and yellow. . . . .	10	contains mont-		Clay and shale; blue-	
Shale, green to reddish-		morillonite. . . . .	2	gray. . . . .	11 587
gray. . . . .	20	Shale, silty and	12	Sandstone . . . . .	9 595
Shale, gray, and a		slightly sandy,		Shale, gray; contains	
little sand . . . . .	10	calcareous, mica-		streaks of hard	
Shale, carbonaceous,		ceous, hard, platy,		sandstone . . . . .	21 617
gray to dark-gray . .	10	dark-yellowish-		Sandstone . . . . .	10 627
Shale, sandy, gray. . .	80	brown; contains		Shale and clay; gray. .	28 655
Shale, sandy, gray;		montmorillonite. . .	10.5	<b>C4-69-31ddcd. Alt. 5,580 ft.</b>	
contains 5 percent		Shale, silty, cal-	22.5	Piney Creek Alluvium:	
coal. . . . .	10	careous, micaceous,		Topsoil . . . . .	5 5
Shale, sandy, gray. . .	10	moderate-yellowish-		Slocum Alluvium:	
Shale, greenish-gray,		brown. . . . .	10	Gravel and boulders . .	8 13
and coal. . . . .	10			Pierre Shale:	
Shale, sandy, gray. . .	40	<b>C4-69-31ddcg. Alt. 5,422.8 ft.</b>		Shale at 13 feet	
Shale, sandy, gray,		Colluvium:		<b>C4-69-31ddcd. Alt. 5,580 ft.</b>	
coal, and limy		Silt, sandy, micaceous,		Slocum Alluvium:	
concretions . . . . .	10	pale-yellowish-		Boulders and clay . . .	20 20
Shale, sandy, gray. . .	30	brown; contains		Slocum Alluvium and Pierre	
Shale, sandy, gray, and		fine sand. . . . .	5	Shale, undifferentiated:	
coal. . . . .	10	Dawson Formation (upper		Shale, dark, and	
Shale, sandy, gray. . .	30	part):		gravel. . . . .	10 50
Shale, sandy, gray;		Silt, less sandy than			
contains about 30		above, micaceous,			
percent sand. . . . .	20	pale-yellowish-			
		brown; contains			
		montmorillonite. . .	10.5		
			15.5		

Table J.--Loss of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C4-69-14aabb. Alt. 5,401.4 ft.</b>					
Post-Piney Creek alluvium:					
silt, micaceous, non-					
calcareous, sandy,					
light-olive-gray;					
contains					
montmorillonite . . .	2.5				
Louviers Alluvium:					
silt, finely micaceous,					
dark-yellowish-					
brown, noncalcareous.	3				
sand, very coarse, well-					
sorted, arkosic,					
subangular to sub-					
rounded, about 10					
percent very fine to					
fine gravel, and a					
little pale-					
brownish-yellow					
non-calcareous					
silt. . . . .	3.5				
Gravel, very fine to					
coarse, arkosic,					
subangular to well-					
rounded, and about					
20 percent sand . . .	11.5				
Dawson Formation (upper					
part):					
Shale, silty, non-					
calcareous, hard,					
platy; contains					
montmorillonite . . .	2				
<b>C4-69-14aach. Alt. 5,400.8 ft.</b>					
Post-Piney Creek alluvium:					
silt, sandy, non-					
calcareous, mica-					
ceous, dark-					
yellowish-brown;					
contains very fine					
sand and mont-					
morillonite . . . . .	2.5				
Broadway Alluvium:					
Gravel, fine, and					
sand. . . . .	2				
Sand, medium to very					
coarse, subangular					
to subrounded,					
arkosic, about 10					
percent very fine to					
fine gravel; contains					
some gravel . . . . .	3				
Louviers Alluvium:					
Gravel, very fine to					
coarse, arkosic,					
subangular to					
subrounded, and					
about 50 percent					
medium to very					
coarse sand . . . . .	10.5				
Dawson Formation (upper					
part):					
Shale, silty, non-					
calcareous, light-					
olive-gray; contains					
montmorillonite and					
limonite. . . . .	4.5				
<b>C4-69-14aac. Alt. 5,400.8 ft.</b>					
Post-Piney Creek alluvium:					
silt, sandy, micaceous,					
noncalcareous,					
dark-yellowish-					
brown; contains					
montmorillonite . . .	3.5				
Louviers Alluvium:					
Gravel, very fine to					
coarse, poorly					
sorted, subrounded					
to rounded, arkosic,					
loose, and coarse					
to very coarse sand .	10.5				
Gravel, fine, and sand.	1.5				
Dawson Formation (upper					
part):					
Shale, silty, non-					
calcareous, pale-					
olive; contains					
montmorillonite . . .	2				
<b>C4-69-14abaa. Alt. 5,405 ft.</b>					
Post-Piney Creek alluvium:					
topsoil . . . . .	4				
Louviers Alluvium:					
sand, coarse, gravel					
and boulders. . . . .	11				
Dawson Formation (upper					
part):					
sand, cemented, dirty,					
and clay. . . . .	4				
Shale at 19 feet					
<b>C4-69-14acdd. Alt. 5,453.4 ft.</b>					
Slocum Alluvium:					
<b>C4-69-14acdd. --Continued</b>					
Silt, sandy, cal-					
careous, dark-					
yellowish-brown;					
contains fine					
sand. . . . .	3				
Gravel, very fine to					
coarse, arkosic,					
loose, subangular					
to rounded. . . . .	3.5				
Dawson Formation (upper					
part):					
Shale, silty, soft,					
moderate-yellowish-					
brown; becomes					
slightly calcareous					
below 17.5 feet					
Shale, silty, sandy,					
hard, noncalcareous,					
moderate-yellowish-					
brown; contains					
limonitic material,					
at 20 feet					
<b>C4-69-14adbb. Alt. 5,396.6 ft.</b>					
Post-Piney Creek alluvium:					
silt, sandy, very					
calcareous, dark-					
yellowish-brown . . .	6				
Broadway Alluvium:					
Sand, medium to					
coarse, very					
micaceous, silty,					
subangular to					
rounded, arkosic,					
moderate yellowish-					
brown . . . . .	3				
Sand, very coarse,					
arkosic, sub-					
rounded to rounded,					
and arkosic					
rounded very fine					
to fine gravel. . . .	5				
Louviers Alluvium:					
Cobbles . . . . .	1				
Sand, loose . . . . .	2.5				
Dawson Formation (upper					
part):					
Shale, silty, sandy,					
grayish-olive;					
contains mont-					
morillonite, coal,					
and limonitic					
material. . . . .	5				
<b>C4-69-14adbc. Alt. 5,406.0 ft.</b>					
Post-Piney Creek alluvium:					
silt, slightly					
sandy, calcareous,					
micaceous, pale-					
yellowish-brown;					
contains fine					
sand. . . . .	8.5				
Louviers Alluvium:					
Cobbles and gravel. .	2				
Dawson Formation (upper					
part):					
Shale, silty, sandy,					
and gravelly, non-					
calcareous,					
moderate-yellow;					
contains mont-					
morillonite . . . . .	2				
<b>C4-69-16cbba. Alt. 5,365 ft.</b>					
Post-Piney Creek alluvium:					
Clay. . . . .	12				
Piney Creek Alluvium:					
Clay, sandy . . . . .	11				
Louviers Alluvium:					
Boulders, gravel, and					
sand. . . . .	16				
Dawson Formation:					
Clay. . . . .	6				
Shale . . . . .	13				
<b>C4-69-16cdad. Alt. 5,340 ft.</b>					
Post-Piney Creek alluvium:					
Soil. . . . .	2				
Louviers Alluvium:					
Gravel. . . . .	22				
Dawson Formation (upper					
part):					
Shale, blue . . . . .	12				
Shale, gray . . . . .	18				
Sandstone, gray . . .	11				
Shale, gray . . . . .	81				
Dawson Formation (lower					
part):					
Sand [Middle					
conglomerate, 146					
to 409 feet]. . . . .	3				
Shale, gray . . . . .	80				
Sand. . . . .	7				
<b>C4-69-16cdad. --Continued</b>					
Shale, gray. . . . .	58				
Sand . . . . .	6				
Shale, gray. . . . .	14				
Sand, fine . . . . .	4				
Shale, sandy, gray . .	9				
Sand, fine . . . . .	9				
Shale, gray. . . . .	29				
Sandstone, gray, and					
gray shale . . . . .	19				
Sand . . . . .	5				
Shale, gray. . . . .	11				
Lime, sandy. . . . .	1				
Sand and gray shale . .	12				
Shale, gray. . . . .	21				
Sandstone, gray. . . .	12				
Shale, gray. . . . .	22				
Sand, fine [Lower					
conglomerate, top					
at 479 feet]. . . . .	10				
Pyrite and sand. . . .	1				
Shale, gray. . . . .	28				
Sand, fine . . . . .	3				
Shale, gray. . . . .	9				
Sand, fine . . . . .	3				
Shale, gray. . . . .	47				
Sandstone, hard, gray .	2				
Shale, gray. . . . .	20				
Sand, fine . . . . .	30				
Laramie Formations:					
Shale, gray. . . . .	79				
<b>C4-70-1adac. Alt. 5,733 ft.</b>					
Verdoo Alluvium:					
Hardpan. . . . .	10				
Rock, red. . . . .	15				
Dawson Formation (upper					
part):					
Shale, sandy . . . . .	5				
Sand, (water-bearing) .	7				
Shale, blue. . . . .	20				
Lime, sandy. . . . .	8				
Shale, blue. . . . .	10				
Lime, blue . . . . .	5				
Shale, blue. . . . .	19				
Shale, sandy . . . . .	11				
Shale, brown . . . . .	70				
Shale, blue. . . . .	15				
Shale, brown . . . . .	10				
Shale, white . . . . .	20				
Shale, sandy . . . . .	5				
Shale, blue. . . . .	40				
Shale, green . . . . .	5				
Shale, blue. . . . .	7				
Lime, white. . . . .	3				
Shale, blue. . . . .	65				
Shale, brown . . . . .	10				
Shale, blue. . . . .	45				
Shale, brown . . . . .	10				
Shale, blue. . . . .	60				
Shale, white . . . . .	3				
Dawson Formation (lower					
part):					
Sand, white [Middle					
conglomerate, 498					
to 580 feet.] (water-					
bearing, 4 gpm). . . .	19				
Shale, blue. . . . .	3				
Lime, sandy. . . . .	4				
Sand (water-bearing) .	56				
Shale, black . . . . .	3				
Lime, light-colored. . .	10				
Shale, dark. . . . .	12				
Lime, sandy. . . . .	10				
Shale, brown . . . . .	25				
Lime, white. . . . .	15				
Shale, brown . . . . .	20				
Lower conglomerate:					
Sand (water-bearing,					
yields 20 gpm at					
700 feet.) . . . . .	67				
Shale, brown . . . . .	2				
Sand (water-bearing) .	6				
Sandstone, gray. . . .	50				
Shale, gray. . . . .	10				
Sand, coarse . . . . .	20				
Sandrock, calcareous .	35				
Laramie Formations:					
Shale, brown . . . . .	17				
Shale, sandy, brown. .	13				
Shale, sticky, brown . .	15				
Shale, brown and gray .	25				
Shale, sticky, white;					
has characteristics					
of bentonite; closes					
hole and squeezes					
tools and casing . . .	3				
Shale, sticky, brown,					
caving . . . . .	12				
Shale, soft, brown;					
contains hard					
shells . . . . .	28				
Shale, blue and white .	22				
Shale, white . . . . .	5				

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth	
<b>C4-70-10dsg. --Continued</b>		<b>C4-70-10dsg. Alt. 6,040 ft.</b>		<b>C4-70-11aagcd. --Continued</b>		
Sand, brown. . . . .	5	1,010	Piney Creek and Rocky	Sand and gray shale:		
Shale, brown. . . . .	5	1,015	Plats Alluvium:	in layers. . . . .	27	945
Shale, brown, caving. . . . .	83	1,098	undifferentiated:	Shale, gray. . . . .	80	925
Sand, shale, and coal.			Clay and gravel. . . . .	Lower conglomerate:		
in thin strata. . . . .	7	1,105		Sand. . . . .	10	935
Shale, sandy, brown. . . . .	19	1,124	Laramie Formation:	Sandstone, blue. . . . .	5	941
Shale, blue. . . . .	21	1,145	Shale, dark. . . . .	Sand. . . . .	17	958
Sand, shale, and coal. . . . .	13	1,158	Shale, sandy, gray. . . . .	Shale, gray. . . . .	4	962
Shale, gray. . . . .	7	1,165		Shale, blue. . . . .	24	986
Sand, hard, gray			<b>C4-70-10dsg. Alt. 6,160 ft.</b>	Sandstone, hard. . . . .	56	1,042
(dry). . . . .	10	1,175	Piney Creek Alluvium:	Shale, gray. . . . .	16	1,058
Shale, gray. . . . .	2	1,177	Clay, sandy, red. . . . .	Sand, fine, and gray		
Sand, gray (water			Lykins Formation:	shale. . . . .	20	1,078
rose 647 feet.). . . . .	3	1,180	Shale, red. . . . .	Laramie Formation (faulted):		
Shale, gray. . . . .	35	1,215	Sand, fine. . . . .	Shale, gray: contains		
Shale, carbonaceous,			Shale, red. . . . .	thin layers of fine		
dark. . . . .	37	1,252	Shale, gray, and	sand. . . . .	111	1,189
Sand, brown. . . . .	2	1,255	sand. . . . .	Shale, gray. . . . .	21	1,210
Shale, gray: hard at			Sand, fine. . . . .	Shale, gray: contains		
top, becomes softer			Sand, yellow. . . . .	layers of fine sand. . . . .	18	1,228
toward bottom. . . . .	23	1,283	Sand. . . . .	Shale, gray. . . . .	31	1,259
Shale, carbonaceous,			Lime, sandy, hard. . . . .	Shale, hard, blue. . . . .	9	1,268
black. . . . .	4	1,287	Sandstone, red. . . . .	Shale, gray. . . . .	14	1,282
Shale, sticky, gray. . . . .	30	1,317	Sand, fine, and red	Shale, hard, blue. . . . .	9	1,291
Shale, carbonaceous,			shale. . . . .	Shale, gray. . . . .	99	1,390
black. . . . .	3	1,320	Lime, sandy. . . . .	Sand, fine. . . . .	15	1,405
Shale, hard, gray. . . . .	17	1,333	Shale, red, and fine	Sand, fine, and gray		
Shale, sticky, green. . . . .	4	1,341	sand. . . . .	shale. . . . .	17	1,422
Shale, brown and gray,			Shale, red, and	Shale, gray. . . . .	18	1,440
sandstone, and			streaks of sandy	Mudstone. . . . .	2	1,442
coal. . . . .	23	1,364	lime. . . . .	Shale, gray. . . . .	12	1,454
Shale, hard, gray. . . . .	10	1,374		Shale, gray, and coal. . . . .	32	1,486
Sandstone, very hard. . . . .	1	1,375	<b>C4-70-11aagcd. Alt. 6,009 ft.</b>	Sand, fine, and gray		
Shale, some hard,			Colluvium and Rocky	shale. . . . .	47	1,533
some soft, gray			Plats	Coal. . . . .	12	1,545
and black: caves			Alluvium, undifferent-	Shale, gray. . . . .	26	1,571
badly. . . . .	11	1,386	iated:	Shale, brown. . . . .	3	1,574
Shale. . . . .	7	1,393	Topsoil. . . . .	Shale, gray. . . . .	24	1,598
Shale, hard, black. . . . .	4	1,397	Dawson Formation (upper			
Sandstone, fine-			part):			
grained, gray (water-			Sandstone, brown. . . . .			
bearing). . . . .	8	1,405	Shale, blue. . . . .			
Shale, hard, black. . . . .	5	1,410	Sandstone, blue. . . . .			
Sandstone, hard, gray			Shale, brown. . . . .			
(B sandstone, 1,410			Sandstone, brown. . . . .			
to 1,471 feet.). . . . .	4	1,414	Shale, brown. . . . .			
Sandrock, soft, gray			Sandstone, gray. . . . .			
(water rose 970			Shale, brown. . . . .			
feet.). . . . .	6	1,420	Shale, gray. . . . .			
Shale, gray. . . . .	4	1,424	Sandstone, gray. . . . .			
Shale, sandy, hard,			Shale, brown, and			
gray. . . . .	13	1,437	sandstone. . . . .			
Sandrock: hard at top,			Sandstone, gray. . . . .			
becomes softer toward			Shale, brown. . . . .			
bottom (water-			Shale, gray. . . . .			
bearing). . . . .	10	1,447	Shale, green. . . . .			
Shale, soft, sticky,			Shale, sandy, blue. . . . .			
gray. . . . .	7	1,454	Sandstone, gray, and			
Sandstone, hard (water			shale. . . . .			
rose 1,251 feet to			Sandstone, blue. . . . .			
within 120 feet of			Sandstone, gray, and			
ground surface). . . . .	17	1,471	shale. . . . .			
Shale, soft, gray. . . . .	15	1,486	Shale, sandy, blue. . . . .			
Shale, sticky, black. . . . .	48	1,534	Sandstone, gray. . . . .			
Sand, dark-brown (A			Shale, brown. . . . .			
sandstone, 1,534			Shale, gray. . . . .			
to 1,636 feet.). . . . .	18	1,552	Sandstone, gray. . . . .			
(water-bearing). . . . .	20	1,572	Shale, sandy, gray. . . . .			
Shale, sandy, gray. . . . .	20	1,572	Sandstone, blue, and			
Sand, fine, gray:			blue sandy shale. . . . .			
contains lime shells			Sandstone, blue. . . . .			
and fossils (water			Shale, brown. . . . .			
rose to within 153			Sandstone, blue, and			
feet of ground			shale. . . . .			
surface). . . . .	28	1,600	Sandstone, blue. . . . .			
Sand, dark shale,			Sandstone, blue, and			
shells, and coal,			sandy shale. . . . .			
in alternate layers. . . . .	36	1,636	Shale, brown, and			
Shale, light-gray. . . . .	7	1,643	sandy shale. . . . .			
<b>Fox Hills Sandstone:</b>			Sand, fine, and			
<b>Milliken Sandstone Member:</b>			sandy shale; in			
Sand, gray, (water-			layers. . . . .			
bearing). . . . .	85	1,728	Sandstone, brown,			
<b>Transition zone:</b>			and brown shale;			
Shale, light-gray; has			in layers. . . . .			
white spots. . . . .	20	1,748	Sandstone, gray, and			
Lime, hard. . . . .	5	1,753	shale. . . . .			
Sand, gray (water rose			Sand, fine, and			
to within 120 feet			shale. . . . .			
of ground surface). . . . .	20	1,773	Shale, gray. . . . .			
Shale, gray. . . . .	13	1,786	Sandstone, gray. . . . .			
<b>C4-70-4dsg. Alt. 6,075 ft.</b>			Shale, gray. . . . .			
Dirt. . . . .	12	12	<b>Dawson Formation (lower</b>			
Clay, red. . . . .	9	21	part):			
<b>Precambrian:</b>			Sand, fine, and gray			
Granite, red. . . . .	14	35	shale; in layers			
Granite, red and gray,			[Middle conglomerate,			
mixed. . . . .	54	89	753 to 845 feet.). . . . .			
Fracture, broken			Shale, gray. . . . .			
granite (water-			Sand, fine. . . . .			
bearing). . . . .	2	91	Sand and gray shale,			
Granite, red and gray. . . . .	7	98	in layers. . . . .			
			Shale, gray. . . . .			

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C4-70-23dca2. Alt. 5,950 ft.		C5-65-5bdab2. --Continued		C5-65-18bdac. --Continued	
Colluvium:		Sand, fine to coarse,		Shale. . . . .	75 660
Soil and clay. . . . . 5	5	arkosic, clean,		Sand. . . . .	30 590
Benton Shale:		pinkish-gray;		Shale and some layers	
Clay, blue. . . . . 10	15	contains streaks		of coal. . . . .	70 760
Shale, gray. . . . . 20	35	of shale [Upper		Sand, fine, hard. . . . .	30 790
Rock, blue. . . . . 2	37	conglomerate, 230			
Shale, sandy, black. . . 15	52	to 415 feet.] . . . . 35	265		
C4-70-26cdaa. Alt. 6,011 ft.		Shale, silty, gray;		C5-65-19cbhc. Alt. 6,075 ft.	
Post-Piney Creek alluvium:		contains streaks		Dawson Formation (upper	
Sand, fine, and		of fine, silty,		part):	
gravel. . . . . 2	2	gray sand. . . . . 125	390	Topsoil. . . . .	1 1
Piney Creek Alluvium:		Lignite. . . . . 25	415	Clay, sandy, brown. . . . .	3 4
Topsoil, and silt. . . . 4	6	Shale, clayey, silty,		Clay, yellow. . . . .	3 7
Broadway Alluvium:		and sandy, inter-		Clay, sandy, gray. . . . .	10 17
Sand and gravel. . . . 12	18	bedded with gray		Sandstone. . . . .	16 33
Louviers Alluvium:		fine silty sand		Shale, green. . . . .	8 41
Sand, silty. . . . . 7	25	and fine-grained		Shale, gray. . . . .	12 53
Gravel and boulders. . . 7	32	sandstone; contains		Sandstone, white. . . . .	14 87
		numerous beds of		Clay, sandy, yellow. . . . .	5 92
C4-70-29acda. Alt. 6,840 ft.		lignite. . . . . 560	975	Sand. . . . .	6 98
Louviers(?) Alluvium:		Dawson Formation (lower		Shale, sandy, gray. . . . .	28 126
Boulders and sand. . . 15	15	part):		Shale, gray. . . . .	11 137
Precambrian:		Shale, silty to		Shale, brown. . . . .	3 140
Granite, blue. . . . . 20	35	sandy, interlayered		Sandstone and gray	
Quartz, white. . . . . 13	48	with very fine to		shale. . . . .	5 145
C4-70-29adcb. Alt. 6,790 ft.		fine, silty to		Shale, brown. . . . .	7 152
Piney Creek Alluvium:		clean sand and		Shale, sandy, gray. . . . .	7 159
Clay, black. . . . . 6	6	very fine- to		Shale, brown. . . . .	4 163
Louviers Alluvium:		fine-grained sand-		Shale, gray. . . . .	12 195
Gravel and boulders. . . 6	12	stone [Middle		Shale, brown. . . . .	16 211
Precambrian:		conglomerate, 975		Shale, gray, and	
Granite, decomposed. . . 4	16	to 1,273 feet.] . . . 155	1,130	sandstone. . . . .	28 239
Granite, rose, and		Sand, medium to coarse,		Sand and sandstone. . . . .	17 256
quartz. . . . . 15	31	clean, arkosic,		Shale, green. . . . .	3 259
Granite, rose (water		light-gray; contains		Shale, gray. . . . .	22 281
at 61, 68, and 82		layers of gray		Shale, brown. . . . .	3 284
feet). . . . . 57	88	silty shale. . . . . 143	1,273	Shale, gray. . . . .	37 321
		Shale, clayey to		Sand and gray shale. . . . .	10 331
C4-70-33bcab. Alt. 6,395 ft.		silty, gray. . . . . 87	1,360	Shale, gray. . . . .	48 379
Piney Creek Alluvium:		Lower conglomerate:		Sand, fine, and gray	
No sample. . . . . 1	1	Sand, very fine to		shale. . . . .	27 406
Clay, sandy. . . . . 5	6	fine, clean, gray;		Limestone. . . . .	4 410
Louviers Alluvium:		contains layers		Sand and shale. . . . .	11 421
Rock, decomposed. . . . 12	18	of gray, silty to		Shale, gray. . . . .	3 424
Clay, blue. . . . . 4	22	clayey shale. . . . . 50	1,410	Lime. . . . .	2 426
Sand and gravel. . . . . 6	28	Shale, clayey to		Sand. . . . .	8 434
Precambrian:		silty, gray. . . . . 60	1,470	Shale, gray. . . . .	4 438
Granite. . . . . 1	29	Sand, very fine to		Lime. . . . .	3 441
C5-65-2cggc. Alt. 5,751 ft.		fine, clean, gray;		Shale, brown. . . . .	8 449
Broadway and Louviers Alluvium,		contains streaks and			
undifferentiated:		layers of gray silty		C5-65-29babb. Alt. 6,160 ft.	
Sand and gravel. . . . 30	30	to clayey shale. . . . 100	1,570	Dawson Formation (upper	
Dawson Formation (upper		Laramie Formation:		part):	
part):		Shale, silty to		Topsoil. . . . .	2 2
Shale, blue. . . . . 70	100	clayey, gray;		Clay, sandy, yellow. . . . .	4 6
Coal, soft. . . . . 5	105	contains a few		Clay, yellow. . . . .	8 14
Shale, gray. . . . . 45	150	layers of very		Clay, blue. . . . .	2 16
C5-65-2edcc. Alt. 5,827 ft.		fine silty light-		Clay, yellow. . . . .	5 21
Dawson Formation (upper		gray sand. . . . . 140	1,710	Sand and white sandy	
part):		Sand, very fine,		clay. . . . .	17 38
Sand. . . . . 27	27	silty to clean,		Clay, yellow. . . . .	7 47
Boulders. . . . . 5	32	light-gray;		Clay, white. . . . .	58
Shale, sandy. . . . . 8	40	contains streaks		Clay, sandy, gray. . . . .	15 73
Shale, blue and gray. . 110	150	of gray silty		Sand and white sandy	
C5-65-2eddd. Alt. 5,772 ft.		shale. . . . . 40	1,750	clay. . . . .	17 90
Dawson Formation (upper		Shale, silty to		Clay, sandy, gray. . . . .	7 97
part):		clayey, light-gray;		Shale, blue. . . . .	28 125
Sand. . . . . 27	27	contains a few thin		Sand, medium. . . . .	10 135
Boulders. . . . . 5	32	lignite beds and		Shale, gray. . . . .	6 141
Shale, sandy. . . . . 8	40	thin streaks of		Shale, sandy, gray. . . . .	9 150
Shale, blue and gray. . 110	150	light-gray very		Shale, blue and gray. . . . .	16 236
C5-65-2eddd. Alt. 5,772 ft.		fine silty sand. . . . 155	1,905	Shale, sandy, gray. . . . .	14 250
Dawson Formation (upper		Lignite, underlain		Sand and sandy shale:	
part):		by a few feet of		in layers. . . . .	26 276
Sand and gravel. . . . 40	40	gray, silty shale. . . 15	1,920	Coal. . . . .	1 277
Shale. . . . . 110	150			Sandstone, limy. . . . .	1 278
C5-65-2eddd. Alt. 5,749 ft.		B sandstone:		Shale, sandy. . . . .	2 280
Post-Piney Creek alluvium		Sand, very fine to		Shale, blue-gray. . . . .	38 318
and Broadway and Louviers		fine, clean,		Shale, sandy, gray. . . . .	6 324
Alluvium, undifferentiated:		light-gray. . . . . 75	1,995	Shale, sandy, gray,	
Sand, gravel, and		A sandstone:		and gray sandstone. . . . .	9 333
sandy shale. . . . . 42	42	Shale, silty, light-		Coal. . . . .	1 334
Dawson Formation (upper		gray, and light-		Conglomerate, quart-	
part):		gray very fine		zite. . . . .	2 336
Sandstone. . . . . 11	53	silty sand. . . . . 67	2,062	Shale, gray. . . . .	13 349
Shale. . . . . 72	125	Pox Hills Sandstone:		Shale, sandy, gray. . . . .	7 356
Sandstone. . . . . 3	128	Milliken Sandstone Member:		Shale, sandy, brown. . . . .	1 359
Shale. . . . . 22	150	Sand, very fine,		Shale, sandy, gray. . . . .	2 361
C5-65-5bdab2. Alt. 5,812 ft.		clean, light-gray;		Sand and gray sandy	
Dawson Formation (upper		grades downward		shale: in layers. . . . .	79 440
part):		to light-gray silt. . 40	2,102	Shale, sandy, gray,	
Topsoil, silty,		C5-65-18bdac. Alt. 5,992 ft.		and gray shale. . . . .	30 470
clayey. . . . . 5	5	Dawson Formation (upper		Shale, sandy, brown,	
Claystone, silty, buff,		part):		and sand. . . . .	25 495
and fine silty clayey		Sandstone. . . . . 75	75	Shale, gray. . . . .	6 501
sand. . . . . 45	50	Shale. . . . . 135	230	Shale, sandy, gray,	
Shale, silty to sandy,		Sand (dry). . . . . 10	240	and gray shale. . . . .	23 524
greenish-gray, and		Shale. . . . . 190	430	Coal. . . . .	2 526
very fine to fine		Upper conglomerate:		Shale, gray, and gray	
silty sand; contains		Sand (dry). . . . . 60	490	sandy shale. . . . .	26 552
a little coarse		Shale. . . . . 58	548	Coal. . . . .	1 553
sand. . . . . 180	230	Sand (yields some		Shale, gray. . . . .	6 559
		water). . . . . 17	585	Sand. . . . .	7 566
				Shale, gray. . . . .	34 600



Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth	
<b>CS-65-10aabb. Alt. 6,135 ft.</b>		<b>CS-66-6bada.--Continued</b>		<b>CS-66-6bada.--Continued</b>		
Dawson Formation (upper part):		Sand, subangular to angular, very arkosic, 50 percent coarse, 20 percent medium, 20 percent fine, 10 percent very fine, very micaceous, slightly silty, dusky-yellow, about 40 percent light-colored feldspar; contains carbonaceous streaks in lower part . . . . . 19		Siltstone and shale, sandy, carbonaceous, yellowish-gray, and lignite. . . . . 19		
Topsoil, heavy . . . . .	3	Silt, dusky-yellow. . . . . 7	210	Siltstone, sandy, carbonaceous, yellowish-gray, lignite, and very fine-grained sandstone. . . . . 53	460	
Clay, brown. . . . .	55	Sand, subangular to angular, very arkosic, very micaceous, 30 percent coarse, 40 percent medium, 20 percent fine, 10 percent very fine; contains pyrite and coal. . . . . 12	222	Limestone, sandy, greenish-gray. . . . . 1	495	
Shale, blue. . . . .	102	Silt, noncalcareous, sandy, micaceous; contains very fine sand. . . . . 29	251	Siltstone, calcareous, firm . . . . . 1	496	
Coal and sand (yields about 1 gpm) . . . . .	7	Sand, very fine, subangular, silty . . . . . 2	253	Limestone, sandy, greenish-gray. . . . . 1	497	
Shale, blue. . . . .	151	Silt, noncalcareous, sandy, micaceous; contains very fine sand. . . . . 10	263	Siltstone, calcareous, light-gray . . . . . 1	498	
Sand, fine, and coal. . . . .	4	Sand and gravel, sub-rounded, very arkosic, 20 percent very fine gravel, 60 percent very coarse sand, 15 percent coarse sand, 5 percent very fine to medium sand; contains a little mica and pyrite. . . . . 13	276	Sandstone, fine-grained, calcareous, grayish-yellow-green. . . . . 3	501	
Shale, blue. . . . .	64	Sand, fairly well-sorted, 40 percent very coarse, 30 percent coarse, 20 percent medium; includes many iron-stained quartz grains. . . . . 7	283	Siltstone, sandy, calcareous, greenish-gray. . . . . 9	510	
Sand, fine, black. . . . .	4	Silt, light-olive-gray; contains much pyrite. . . . . 10	293	Limestone, dense, crystalline, greenish-gray . . . . . 1	511	
Shale, blue. . . . .	80	Sand and gravel, sub-angular to sub-rounded, 10 percent very fine gravel, 30 percent very coarse sand, 30 percent coarse sand, 20 percent medium sand, 10 percent very fine to fine sand; contains abundant pyrite and coal. . . . . 2	307	Shale, silty, greenish-gray . . . . . 6	517	
Rock, layer. . . . .	4	Silt and shale, sandy, carbonaceous, light-olive-gray. . . . . 25	334	Silt, siltstone, silty shale, thin bedded sandy limestone and greenish-gray calcareous carbonaceous silty medium-grained sandstone. . . . . 47	564	
Shale, blue. . . . .	9	Sandstone, coarse-grained, light-olive-gray. . . . . 4	338	Sand, arkosic, silty, carbonaceous, sub-angular to well-rounded, micaceous, dusky-yellow, 30 percent very coarse to coarse, 70 percent medium to very fine; contains shale [Upper conglomerate, 564 to 621 feet]. . . . . 23	587	
Shale, sandy (dry). . . . .	22	Silt and shale, sandy, carbonaceous, light-olive-gray. . . . . 20	358	Shale, yellowish-gray . . . . . 5	592	
Shale, blue. . . . .	10	Siltstone, micaceous, carbonaceous, yellowish-gray. . . . . 6	364	Coal, shiny, black . . . . . 2	594	
Upper conglomerate: Sand, fine to coarse, (water-bearing) . . . . . 30	545	Shale, silty, micaceous, carbonaceous, light-olive-gray. . . . . 17	381	Sand, silty, noncalcareous, 10 percent coarse, 20 percent medium, 50 percent fine, 20 percent very fine; contains coal and iron-stained siltstone. . . . . 8	602	
Shale, blue. . . . .	5	Sand, very arkosic, sub-rounded to rounded, silty, 10 percent very coarse, 40 percent coarse, 30 percent medium, 10 percent fine, 10 percent very fine; contains numerous iron-stained grains; yellowish-gray. . . . . 7	388	Sand, 10 percent coarse, 20 percent medium, 50 percent fine, 20 percent very fine, and medium-grained hard calcareous sandstone. . . . . 5	607	
<b>CS-65-11ccce. Alt. 6,168 ft.</b>				Shale, silty, greenish-gray. . . . . 4	611	
Dawson Formation (upper part):				Sand, clean, iron-stained, 10 percent coarse, 40 percent medium, 40 percent fine, 10 percent very fine; contains coal, medium-grained, silty. . . . . 4	621	
Conglomerate and fine sand (water-bearing) . . . . .	70			Shale, medium-light-gray . . . . . 6	627	
Sandstone, cemented. . . . .	40			Limestone, slightly sandy, light-gray. . . . . 1	628	
Shale, blue. . . . .	5			Siltstone, calcareous, and shale. . . . . 1	629	
Sandstone, fine-grained. . . . .	15			Limestone, slightly sandy, light-gray. . . . . 1	630	
Shale, brown, blue, and red; contains coal seams . . . . .	66			Silt, siltstone, and silty sandstone, medium-light-gray. . . . . 13	643	
Shale, clay; contains coal seams . . . . .	114			Coal and carbonaceous siltstone. . . . . 3	646	
Rock, hard . . . . .	4			Silt, carbonaceous, medium-light-gray. . . . . 3	649	
Shale. . . . .	26			Limestone, sandy, light-gray . . . . . 4	653	
Rock, hard; has no fractures. . . . .	3					
Shale; contains many coal seams . . . . .	112					
Shale; contains thin layers of dry sand . . . . .	23					
Rock, hard . . . . .	2					
Rock; harder than above. . . . .	30					
Rock, hard; contains breaks of sandstone. . . . .	30					
Shale; contains layers of sandstone. . . . .	45					
Shale. . . . .	8					
Upper conglomerate: Sand; contains thin breaks of shale. . . . .	84					
<b>CS-66-6bada. Alt. 5,719 ft.</b>						
Solian sands:						
Sand, windblown. . . . .	2					
Topsoil. . . . .	1					
Sand, fine. . . . .	23					
Dawson Formation (upper part):						
Clay, sandy, brown . . . . .	17					
Sandstone, yellow. . . . .	5					
Clay, yellow . . . . .	5					
Sandstone, brown . . . . .	5					
Sandstone, gray. . . . .	2					
Silt, sandy, compact, very micaceous, noncalcareous; contains some light-olive-gray and light-brownish-gray gypsum, and 5 percent very fine sand . . . . .	33					
Sandstone, very fine-grained, friable, micaceous, noncalcareous, light-olive-gray; rounded grains . . . . .	7					
Silt and shale, noncalcareous, light-olive-gray . . . . .	12					
Sandstone, very fine to fine-grained, silty, light-olive-gray . . . . .	2					
Sand, very fine, silty, and silt; micaceous, arkosic, light-olive-gray; contains some coal. . . . .	62					
Sandstone, very fine-grained, carbonaceous . . . . .	4					
Silt, clayey, carbonaceous . . . . .	4					

Table 3.--Loss of wells and test holes--Continued

	Thick- ness	Depth		Thick- ness	Depth		Thick- ness	Depth
<b>C5-66-6bada.</b> --Continued			<b>C5-66-6bada.</b> --Continued			<b>C5-66-6bada.</b> --Continued		
Silt. siltstone and coal . . . . .	12	665	Sand, very clayey, silty, 10 percent coarse, 10 percent medium, 40 percent fine, 20 percent very fine . . . . .	8	1,021	Sand, very coarse, and very fine gravel . . . . .	4	1,219
Limestone, sandy, white to light gray . . . . .	2	667	Shale, silty, carbonaceous, light-olive-gray and greenish-gray . . . . .	46	1,067	Shale, clay, pale-olive, and carbonaceous siltstone . . . . .	5	1,224
Siltstone, carbonaceous, light-gray . . . . .	6	673	Siltstone, greenish-gray . . . . .	4	1,071	Sand and gravel; sub-rounded, arkosic, 5 percent very fine gravel, 50 percent very coarse sand, 15 percent coarse sand, 15 percent medium sand, 10 percent fine sand, 5 percent very fine sand . . . . .	9	1,233
Siltstone, limonite-stained, dusky-yellow; contains about 5 percent carbonaceous materials . . . . .	16	689	Shale and siltstone, greenish-gray; contains some lignite . . . . .	10	1,081	Silt, soft, sandy, light-olive-gray and yellowish-gray clay shale . . . . .	6	1,239
Sandstone, medium-grained, siltstone, and light-gray carbonaceous material . . . . .	8	697	Shale, silty, carbonaceous, pale-olive and yellowish-gray, lignite; contains small amounts of silty coarse sand and coal . . . . .	14	1,095	Sand, silty, poorly sorted, arkosic, and shale . . . . .	16	1,255
Siltstone, light-gray, silty sandstone and lignite; contains much mica . . . . .	40	737	Sandstone, silty, very fine-grained to very coarse-grained, carbonaceous, yellowish-gray, and grayish-green clay shale . . . . .	15	1,110	Shale and siltstone; light-olive-gray and yellowish-gray . . . . .	5	1,260
Siltstone, gravelly, carbonaceous, light-olive-gray . . . . .	9	746	Shale, clay, dusky-yellow, and silty, coarse, rounded to well-rounded, arkosic sand . . . . .	12	1,122	Sand, fine, arkosic . . . . .	5	1,265
Shale, carbonaceous, light-olive-gray . . . . .	5	751	Dawson Formation (lower part): Sand, silty, arkosic, subangular to sub-rounded, 10 percent medium, 40 percent fine, 50 percent very fine; contains some very fine gravel, and grayish-olive to light-olive, carbonaceous, clay shale [Middle conglomerate, 1,122 to 1,276 feet.] . . . . .	10	1,132	Siltstone calcareous, light-olive-gray, and clay shale . . . . .	5	1,270
Silt, grayish-blue, and medium-grained sandstone . . . . .	6	757	Shale, silt, and siltstone; carbonaceous, grayish-olive and light-olive . . . . .	35	1,167	Sand, fine, arkosic . . . . .	6	1,276
Silt, carbonaceous, grayish-blue, and lignite . . . . .	6	763	Sand, subangular, arkosic, micaceous, 60 percent very coarse, 10 percent coarse, 10 percent medium, 10 percent fine, 10 percent very fine . . . . .	7	1,174	Shale, light-olive-gray, and calcareous siltstone . . . . .	6	1,282
Siltstone, grayish-blue . . . . .	3	766	Shale, clay, pale-olive . . . . .	4	1,178	Sand and gray shale . . . . .	11	1,293
Siltstone, carbonaceous, noncalcareous, light-gray, lignite, and pale-purple clay . . . . .	18	784	Sand, arkosic, micaceous, fairly well-sorted, subangular, 50 percent very coarse, 10 percent coarse, 30 percent medium, 10 percent fine . . . . .	2	1,180	Shale, light-olive-gray, and calcareous siltstone . . . . .	11	1,293
Sandstone, fine-grained, silty, calcareous . . . . .	7	791	Shale, clay, pale-olive . . . . .	4	1,178	Shale, clay, pale-olive, and sandy siltstone . . . . .	48	1,341
Siltstone, noncalcareous, light-gray, silty sandstone, thin sandy limestone, and lignite . . . . .	58	849	Sand, arkosic, micaceous, 60 percent very coarse, 10 percent coarse, 10 percent medium, 10 percent fine, 10 percent very fine . . . . .	7	1,174	Shale, greenish-gray . . . . .	11	1,352
Sandstone, very coarse-grained, very arkosic, calcareous, and light-gray dense sandy limestone . . . . .	7	856	Shale, clay, pale-olive . . . . .	4	1,178	Shale, greenish-gray, noncalcareous, and micaceous, carbonaceous siltstone . . . . .	9	1,361
Siltstone, light-gray, dark-greenish-gray clay, shale, and lignite . . . . .	33	889	Sand, arkosic, micaceous, fairly well-sorted, subangular, 50 percent very coarse, 10 percent coarse, 30 percent medium, 10 percent fine, 10 percent very fine . . . . .	2	1,180	Shale, silty, non-calcareous, micaceous, carbonaceous, dusky-yellow . . . . .	15	1,376
Sandstone, coarse-grained, very arkosic, greenish-gray pale-purple; contains very clay streaked with carbonaceous material and lignite . . . . .	14	903	Shale, clay, light-olive-gray . . . . .	8	1,188	Lower conglomerate: Sand, very pyritic, arkosic, loose, sub-angular to subrounded, micaceous, 50 percent very coarse, 20 percent coarse, 20 percent medium, 5 percent fine, 5 percent very fine; contains some grains cemented with pyrite . . . . .	18	1,394
Siltstone, sandy, carbonaceous, medium-blue-gray . . . . .	20	923	Sand, arkosic, very pyritic, subrounded to rounded, silty, 10 percent very coarse, 20 percent coarse, 40 percent medium, 20 percent fine, 10 percent very fine . . . . .	8	1,196	Shale, very pyritic, micaceous, light-gray and dusky-yellow . . . . .	8	1,402
Shale, clay, carbonaceous, medium-bluish-gray and dusky-yellow . . . . .	13	936	Sand and gravel, very arkosic, slightly micaceous, 20 percent very fine gravel, 40 percent very coarse sand, 10 percent coarse sand, 10 percent medium sand, 10 percent fine sand, 10 percent very fine sand . . . . .	13	1,209	Shale, as above, and siltstone . . . . .	10	1,412
Siltstone, micaceous, carbonaceous, light-gray, lignite, and grayish-olive very clay shale . . . . .	32	968	Shale, clay, pale-olive and yellowish-gray, and siltstone . . . . .	6	1,215	Shale, noncalcareous, carbonaceous, medium-light-gray . . . . .	5	1,417
Sand, coarse, silty, carbonaceous, and coal . . . . .	9	977				Sand, 10 percent very coarse, 20 percent coarse, 30 percent medium, 30 percent fine, 10 percent very fine, and medium-light-gray very calcareous very micaceous siltstone . . . . .	15	1,432
Shale, clay, iron-stained, grayish-olive . . . . .	4	981				Siltstone and shale; calcareous, micaceous, light-olive-gray and medium-light-gray . . . . .	9	1,441
Sandstone, medium-grained, and lignite . . . . .	3	984				Sand, silty, calcareous, medium-light-gray, 10 percent very coarse, 10 percent coarse, 30 percent medium, 30 percent fine, 20 percent very fine calcareous silt, carbonaceous shale, and recrystallized calcareous material; contains abundant pyrite from 1,472 to 1,482 feet . . . . .	16	1,477
Shale, silty, grayish-olive, clay shale, lignite, and silty sand . . . . .	19	1,003						
Sand, very silty and clayey, subrounded to rounded, 40 percent very coarse, 30 percent coarse, 20 percent medium, 5 percent fine, 5 percent very fine; clay is grayish-green; silt is light-gray . . . . .	10	1,013						

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>CS-66-6bada.--Continued</b>		<b>CS-66-6bada.--Continued</b>		<b>CS-66-19aaaa. Alt. 5,644.5 ft.</b>	
Sand, subangular, arkosic, silty in part, 5 percent very coarse, 10 percent coarse, 20 percent medium, 50 percent fine, 15 percent very fine.	11	1,488	Shale, carbonaceous, noncalcareous, medium-gray.	18	1,865
Shale and silt; non-calcareous, medium-light-gray and dusky-yellow, micaceous, pyritic, sandy; and about 10 percent dense, white- and black-speckled limestone.	14	1,502	Coal.	2	1,867
Sand, fine, and gray shale.	13	1,515	Shale, medium-gray; contains 5 percent arkosic subangular fine to medium sand.	10	1,897
Silt, sandy, non-calcareous, sandy, medium-light-gray, and medium-gray shale; contains abundant pyrite and mica.	7	1,522	Coal.	1	1,898
Shale, noncalcareous, light-olive-gray, and dusky-yellow, micaceous, sandy silt; pyrite rare.	11	1,533	Shale, medium-gray.	1	1,899
Shale, gray.	19	1,552	Coal.	3	1,902
Sand, clean, loose, subrounded to well-rounded, very arkosic, 10 percent very coarse, 20 percent coarse, 40 percent medium, 20 percent fine, 10 percent very fine.	16	1,568	Siltstone and shale.	1	1,903
Laramie Formation:			Coal.	1	1,904
Silt, sandy, dusky-yellow, medium-gray shale, and about 10 percent black and white-speckled soft limestone.	12	1,600	Silt, siltstone, shale; medium-gray, and coal.	41	1,945
Shale, medium-light-gray, silt, soft, black and white speckled limestone, abundant pyrite, dusky-yellow and medium-light-gray sandy silt, and coal.	49	1,649	Coal, shiny, black.	6	1,951
Sand, subrounded, arkosic, silty, lignitic, 10 percent very coarse, 20 percent coarse, 40 percent medium, 20 percent fine, 10 percent very fine and soft limestone.	6	1,655	Shale, medium-gray, and siltstone.	3	1,954
Shale, medium-gray.	28	1,683	Coal, shiny, black.	4	1,958
Sand, subrounded to rounded, arkosic, moderately cemented, 10 percent very coarse, 20 percent coarse, 40 percent medium, 20 percent fine, 10 percent very fine.	10	1,693	Shale, medium-gray.	4	1,962
Shale, sandy, non-calcareous, medium-gray, silt, sand, and coal.	34	1,727	B sandstone:		
Shale, noncalcareous, medium-gray, and sandy speckled yellowish-gray silt.	20	1,747	Sandstone, very fine- to medium-grained, quartz, salt and pepper texture, noncalcareous.	94	2,056
Sand, subrounded, loose, very arkosic, 10 percent very coarse, 10 percent coarse, 40 percent medium, 10 percent fine.	15	1,762	A sandstone:		
Shale, noncalcareous, medium-gray, silt, calcareous silty sandstone, and coal.	60	1,822	Sandstone, silty, salt and pepper texture, quartz.	3	2,059
Sand, silty, shaly, arkosic.	11	1,833	Silt and fine sand, medium-light-gray.	6	2,065
Shale, carbonaceous, noncalcareous, medium-gray.	12	1,845	Sandstone, fine-grained, quartz, salt and pepper texture, silty and pyrite.	9	2,074
Coal.	2	1,847	Shale, silty, medium-light-gray, sandy siltstone, silty sandstone, and coal; abundant pyrite.	73	2,147
			Fox Hills Sandstone:		
			Milliken Sandstone Member:		
			Sandstone, very fine-grained, in part calcareous, quartz, salt and pepper texture, and some white calcareous crystals.	10	2,177
			Shale, medium-light-gray.	10	2,187
			<b>CS-66-12dacc. Alt. 5,900 ft.</b>		
			Dawson Formation (upper part):		
			Topsoil.	1	1
			Soil, sandy.	11	12
			Sand.	7	19
			Clay, brown, blue and yellow.	64	83
			Shale, blue.	39	122
			Sand.	19	141
			Shale, blue.	47	188
			Sand.	4	192
			Shale, blue.	56	278
			Sandstone, soft.	12	290
			Shale, blue.	72	362
			Clay, soft, brown.	3	365
			Sand (Upper conglomerate, 365 to 607 feet.)	4	369
			Coal.	7	376
			Shale, blue.	137	513
			Sand.	9	522
			Rock.	1	523
			Sand, fine, white.	6	529
			Clay, soft, white.	26	555
			Coal, good quality.	23	578
			Clay, soft, blue.	6	584
			Sand, fine.	8	592
			Rock.	1	593
			Sand, fine.	14	607
			Shale.	56	661
			Clay, white.	6	669
			Coal.	15	684
			Shale, blue.	6	690
			Sandstone, very hard, very calcareous.	2	692
			Shale; contains very hard, thin limestone seams at 822, 845, and 870 feet.	211	903
			Sand.	8	911
			Shale; contains very hard, thin limestone seams at 913 feet.	26	937
			No sample.	53	990
			<b>CS-66-19daad. Alt. 5,633.1 ft.</b>		
			Piney Creek Alluvium:		
			Soil.	3	3
			Broadway Alluvium:		
			Sand and gravel (dry).	3	11
			Broadway and Louviers Alluvium, undifferentiated:		
			Gravel, (water-bearing).	16	47
			Dawson Formation:		
			Shale.	1	48
			<b>CS-66-19dbaa. Alt. 5,664.5 ft.</b>		
			Younger loess:		
			Clay, brown; contains fill.	7	7
			Clay, brown.	3	15
			Louviers Alluvium:		
			Sand and gravel (dry).	3	18
			Dawson Formation (upper part):		
			Clay, brown and yellow.	17	15
			Clay, blue.	15	50
			Shale, carbonaceous, silty, and sandy.	33	93
			Sand, fairly hard.	13	96
			Shale, silty, lignite, limestone, and silty sand and sandstone, interbedded.	803	899
			Dawson Formation (lower part):		
			Middle conglomerate:		
			Sand (yields a little water).	12	911
			Shale, silt, limestone, and silty sand and sandstone, interbedded.	136	1,047
			Sand, coarse, and gravel; contains breaks of silty shale.	152	1,199
			<b>CS-66-19dbab. Alt. 5,669 ft.</b>		
			Younger loess:		
			Clay, brown.	3	3
			Clay, sandy, brown.	3	6
			Louviers Alluvium:		
			Sand, clean (dry).	11	17
			Dawson Formation (upper part):		
			Clay, brown.	13	30
			Clay, yellow.	3	18
			Clay, brown.	45	45
			Shale at 45 feet.		
			<b>CS-66-19ddcd3. Alt. 5,640.6 ft.</b>		
			Piney Creek, Broadway, and Louviers Alluvium, undifferentiated:		
			Sand and gravel, clean.	70	70
			Sand and gravel, blue.	39	109
			Dawson Formation:		
			Shale at 109 feet.		
			<b>CS-66-19dddd2. Alt. 5,642.3 ft.</b>		
			Piney Creek Alluvium:		
			Overburden.	6	6
			Broadway and Louviers Alluvium, undifferentiated:		
			Sand and gravel.	32	38
			Louviers Alluvium:		
			Sand, gravel, and blue clay.	8	46
			Sand and gravel.	10	56
			Dawson Formation:		
			Shale, loose.	2	58
			Shale at 58 feet.		
			<b>CS-66-20adda. Alt. 5,785 ft.</b>		
			Eolian sand:		
			Blow sand.	1	1
			Dawson Formation (upper part):		
			Clay, sandy.	4	5
			Sand, fine.	16	21

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CS-66-20adda.---Continued		CS-66-20ccgc.---Continued		CS-66-20ccgc2.---Continued		CS-66-20ccgc2.---Continued	
Clay . . . . .	2	Gravel, very fine to fine, clean, angular, arkosic, and medium to coarse sand . . . . .	4	Louviers Alluvium: Clay . . . . .	2	Louviers Alluvium: Clay . . . . .	28
Sand . . . . .	5	Dawson Formation (upper part): Shale, slightly sandy, very hard, blue. . . . .	4.5	Sand, fine to very coarse, angular to subrounded, arkosic, clean, and about 10 percent very fine gravel. . . . .	24	Sand, fine to very coarse, angular to subrounded, arkosic, clean, and about 10 percent very fine gravel. . . . .	52
Clay . . . . .	1			Boulders and cobbles . . . . .	1	Boulders and cobbles . . . . .	53
Clay, sandy. . . . .	4			Dawson Formation (upper part): Shale, silty, micaceous, non-calcareous, dark-yellowish-brown; contains montmorillonite. . . . .	4.5	Dawson Formation (upper part): Shale, silty, micaceous, non-calcareous, dark-yellowish-brown; contains montmorillonite. . . . .	57.5
Sand, rusty. . . . .	1						
Shale, blue. . . . .	4						
Clay . . . . .	5						
Sandstone. . . . .	5						
Shale, gray. . . . .	10						
Coal . . . . .	1						
Sandstone. . . . .	8						
Shale, gray. . . . .	17						
Sandstone. . . . .	14						
Shale, gray. . . . .	4						
Sandstone. . . . .	13						
Shale, gray. . . . .	32						
Shale, brown. . . . .	9						
Sand . . . . .	10						
Shale, brown. . . . .	3						
Sand . . . . .	6						
Shale, gray. . . . .	7						
Shale, brown. . . . .	7						
Sandstone, gray. . . . .	22						
Shale, gray and brown. . . . .	245						
Lime, sandy. . . . .	3						
Shale, gray. . . . .	27						
Coal . . . . .	10						
Shale, gray. . . . .	513						
Dawson Formation (lower part): Sand [Middle conglomerate, 1.011 to 1.215 feet.] . . . . .	9						
Shale, gray. . . . .	25						
Sand . . . . .	8						
Shale, gray. . . . .	47						
Sand . . . . .	15						
Shale, gray. . . . .	4						
Lime, sandy. . . . .	2						
Sand, silty. . . . .	10						
Shale, gray. . . . .	16						
Lime sandy. . . . .	2						
Sand, silty. . . . .	11						
Shale, gray. . . . .	10						
Lower conglomerate: Sand and gray shale. . . . .	66						
Shale, gray. . . . .	21						
Sand, fine. . . . .	11						
Shale, gray. . . . .	9						
CS-66-20ccbd. Alt. 5,638.7 ft. Piney Creek Alluvium: Soil . . . . .		CS-66-20ccgc. Alt. 5,643.2 ft. Piney Creek Alluvium: Loam, sandy, clayey, dark-brown. . . . .		CS-66-20ccgc2. Alt. 5,652.9 ft. Piney Creek Alluvium: Loam, sandy, dark-brown. . . . .		CS-66-20ccgc2. Alt. 5,652.9 ft. Piney Creek Alluvium: Loam, sandy, dark-brown. . . . .	
Broadway Alluvium: Gravel (dry) . . . . .	3						
Gravel (water-bearing) . . . . .	7						
Louviers Alluvium: Clay . . . . .	1						
Gravel . . . . .	12						
Clay . . . . .	1						
Gravel and boulders. . . . .	15						
Dawson Formation: Shale. . . . .	1						
CS-66-20ccgc. Alt. 5,644.5 ft. Piney Creek Alluvium: Loam, sandy, clayey, dark-brown. . . . .		CS-66-20ccgc. Alt. 5,645.6 ft. Piney Creek Alluvium: Loam, sandy, clayey, dark-brown. . . . .		CS-66-20ccgc2. Alt. 5,655.5 ft. Piney Creek Alluvium: Topsoil, sandy, dark-brown. . . . .		CS-66-20ccgc2. Alt. 5,655.5 ft. Piney Creek Alluvium: Topsoil, sandy, dark-brown. . . . .	
Broadway Alluvium: Sand, very fine to very coarse, angular to sub-angular, arkosic, and very fine gravel. . . . .	17						
Sand, medium to very coarse, arkosic angular to sub-angular. . . . .	2.5						
Sand, fine to very coarse, angular to subangular, arkosic, and about 40 percent subangular to rounded very fine gravel. . . . .	10.5						
Louviers Alluvium: Gravel, very fine, subangular to sub-rounded, cobbles, and very coarse poorly sorted angular to sub-angular arkosic sand. . . . .	4.5						
Gravel, very fine to fine, and fine to very coarse sand. . . . .	6.5						
Cobbles, boulders, and very fine to fine arkosic angular to rounded, mostly subangular, arkosic gravel; contains some poorly sorted sand. . . . .	5						
CS-66-20ccgc. Alt. 5,644.5 ft. Piney Creek Alluvium: Loam, sandy, clayey, dark-brown. . . . .		CS-66-20ccgc. Alt. 5,645.6 ft. Piney Creek Alluvium: Loam, sandy, clayey, dark-brown. . . . .		CS-66-20ccgc2. Alt. 5,655.5 ft. Piney Creek Alluvium: Topsoil, sandy		CS-66-20ccgc2. Alt. 5,655.5 ft. Piney Creek Alluvium: Topsoil, sandy	

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>CS-66-18aabc.--Continued</b>		<b>CS-66-11ccbc.--Continued</b>		<b>CS-67-2babd.--Continued</b>	
Clay, sandy.	5	Louviers Alluvium:		Silt, micaceous,	
Sand, silty, and		Clay.	5	yellowish-gray;	
shale.	26	Gravel.	10	stained with	
Upper conglomerate:		Clay.	11	iron oxide.	5 30
Sand.	3	Gravel.	7	Sand, very coarse,	
Clay.	6	Dawson Formation:		arkosic, very fine	
Sand and thin lignite		Shale.	1	gravel, and light-	
seam.	7		46	olive-gray silt.	15 35
Clay.	19	<b>CS-66-11ccdb. Alt. 5,735 ft.</b>		Silt, light-olive-	
Sand.	6	Piney Creek Alluvium:		gray, fine to very	
Shale, carbonaceous.	14	Clay, sandy, brown.	36	coarse sand, and	
Sand and thin lignite		Dawson Formation (upper		very fine gravel.	5 100
seam.	6	part):		Louviers Alluvium and Dawson	
Shale, lignite, and		Shale, blue.	9	Formation, undifferentiated:	
limy sandstone.	22	Sandstone, gray.	18	Gravel, very fine to	
Sand.	6	Shale, blue.	97	medium, loose,	
Rock.	1	Sand.	2	arkosic, subangular	
Shale.	10	Shale, blue.	78	to subrounded, and a	
Sand.	3	Sandstone.	23	little silty and	
Shale.	20		263	gravelly micaceous	
Sand.	7	<b>CS-67-2abca. Alt. 5,510 ft.</b>		sandstone.	3 103
Shale.	17	Piney Creek Alluvium:		Dawson Formation (upper	
Rock.	1	Loam, sandy, clayey.	5	part):	
Shale.	6	Broadway Alluvium:		Shale, noncalcareous,	
Sand.	1	Sand.	25	light-gray; contains	
Shale.	20	Dawson Formation (upper		montmorillonite.	2 105
	450	part):		<b>CS-67-2bbba. Alt. 5,502 ft.</b>	
<b>CS-66-29baab. Alt. 5,672.4 ft.</b>		Clay, lean, and sandy		Post-Piney Creek alluvium:	
Piney Creek Alluvium:		loam, in alternate		Silt, dark-yellowish-	
Topsoil.	3	layers.	35	brown, and very	
Dawson Formation (upper		Sand.	10	fine sand.	5 5
part):		Loam.	3	Sand, very coarse, sub-	
Sandrock, red.	15	Sand.	4	angular, arkosic,	
Shale.	47	Loam.	4	loose, clean, and	
Sand (water-bearing).	20	Sand.	4	very fine gravel.	5 10
Shale.	50	Clay, lean.	10	Broadway Alluvium:	
Rock, blue.	2	Sand and gravel.	2	Gravel, very fine,	
Sand (water-bearing).	18	Claystone.	16	subangular to sub-	
Shale.	5			rounded, fairly	
	160	<b>CS-67-2babd. Alt. 5,511 ft.</b>		uniform, arkosic,	
<b>CS-66-10aaga2. Alt. 5,643.6 ft.</b>		Piney Creek Alluvium:		loose, clean, and	
Piney Creek Alluvium:		No sample.	15	a little very	
Top, clay.	20	Broadway Alluvium:		coarse sand.	5 15
Broadway and Louviers		Gravel, very fine to		Sand, very coarse,	
Alluvium, undifferentiated:		fine, arkosic,		fairly well-sorted,	
Gravel, clean.	55	loose, subangular,		subangular to sub-	
Dawson Formation (upper		and very coarse,		rounded, loose,	
part):		clean sand.	10	clean, arkosic, and	
Sandstone, weakly-		Gravel, very fine to		a little very fine	
cemented.	25	fine, arkosic,		gravel.	5 20
Shale.	6	fairly well-sorted,		Gravel, very fine to	
	106	subangular to sub-		fine, subangular to	
<b>CS-66-10adaa. Alt. 5,647.8 ft.</b>		rounded, loose,		subrounded, very	
Piney Creek Alluvium:		clean, and a little		arkosic, loose,	
Topsoil.	10	medium to coarse		clean, and coarse	
Broadway Alluvium:		sand.	5	to very coarse	
Sand.	10	Louviers Alluvium:		sand.	10 30
Louviers Alluvium:		Sand, medium to		Louviers Alluvium:	
Gravel, and 15 feet of		very coarse,		Sand, coarse to very	
cobble gravel at		arkosic, angular		coarse, subangular	
the bottom.	65	to subangular,		to subrounded, very	
Dawson Formation (upper		loose, clean.	10	arkosic, loose, and	
part):		Gravel, very fine,		very fine gravel.	5 15
Sandstone, hard.	13	angular to sub-		Gravel, very fine to	
Shale at 98 feet		angular, arkosic,		fine, subangular to	
	98	and about 40		subrounded, loose,	
<b>CS-66-10adad. Alt. 5,650 ft.</b>		percent medium to		very arkosic, and	
Piney Creek Alluvium:		coarse sand.	5	very coarse sand.	
Clay.	13	Gravel, very fine to		Gravel, and cobbles,	
Clay, sandy.	6	very coarse, arkosic,		subangular to very	
Broadway and Louviers		clean, subangular to		well-rounded; con-	
Alluvium, undifferentiated:		well-rounded;		tains many small	
Gravel.	26	contains many		boulders.	10 50
Rock.	7	cobbles and small		Sand, coarse to very	
Louviers Alluvium:		boulders.	5	coarse, loose, sub-	
Clay.	2	Gravel, cobbles,		angular to angular,	
Gravel.	9	loose, arkosic,		arkosic, very fine	
Clay, blue.	19	subangular to		gravel, and	
Gravel.	16	well-rounded, and		cobbles.	15 65
Rock at 98 feet		a little pale-		Gravel, very fine,	
		yellowish-brown		loose, subangular to	
<b>CS-66-10addd. Alt. 5,660 ft.</b>		clayey silt.	5	subrounded, very	
Piney Creek Alluvium:		Sand, medium to very		arkosic, and very	
Topsoil.	13	coarse, arkosic,		coarse sand.	10 75
Broadway Alluvium:		angular to sub-		Gravel, very fine, and	
Sand.	7	angular, loose,		very coarse sand;	
Gravel.	16	and about 30		contains a little	
Louviers Alluvium:		percent very fine		light-olive-gray	
Clay.	4	to fine gravel.	10	and dark-yellowish-	
Gravel.	13	Gravel, very fine,		orange iron-stained	
Clay.	3	angular to sub-		silt.	5 80
Gravel.	9	angular, clean,		Silt, sandy, micaceous,	
Clay, blue.	7	loose, arkosic, and		light-olive-gray.	5 85
Sand, dirty.	8	about 40 percent		Sand, medium to very	
Rock at 80 feet		medium to very		coarse, moderately	
		coarse sand.	5	arkosic, subrounded	
<b>CS-66-11ccbc. Alt. 5,701.4 ft.</b>		Gravel, fine to medium,		to rounded, silty,	
Piney Creek Alluvium:		loose, arkosic,		light-olive-gray.	5 90
Soil.	6	clean, subangular		Dawson Formation (upper	
Broadway Alluvium:		to subrounded;		part):	
Gravel, (water-		many particles		Silt, micaceous,	
bearing).	6	iron-stained.	5	chloritic, light-	
	12			olive-gray.	5 95

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>CS-67-2bbag. --Continued</b>		<b>CS-67-3bbad. Alt. 5,560 ft.</b>		<b>CS-67-6badb. --Continued</b>	
Silt, very sandy, macaceous, chloritic, light-olive-gray. . . . .	5 100	Sand, coarse, and gray shale. . . . .	72 1,005	Shale, gray. . . . .	115 750
Rocks . . . . .	2 102	Shale, gray. . . . .	5 1,010	Shale, sandy, gray. . . . .	30 780
<b>CS-67-3bbad. Alt. 5,548 ft.</b>		Shale, gray, and coarse sand. . . . .	23 1,033	Sand, fine. . . . .	3 783
Piney Creek Alluvium:		Sand, coarse. . . . .	13 1,046	Shale, sandy, gray. . . . .	45 828
Topsoil. . . . .	3 3	Shale, gray, and sand. . . . .	8 1,054	Sand and gray shale. . . . .	23 851
Younger loess:		Shale, gray. . . . .	11 1,065	Shale, gray. . . . .	47 896
Clay, brown. . . . .	15 18	Shale, gray, and sand. . . . .	15 1,080	Lime. . . . .	1 899
Louviers Alluvium:		Shale, gray. . . . .	72 1,152	Shale, sandy. . . . .	15 914
Clay, sandy, and gravel	17 35	Shale, gray, and fine sand. . . . .	29 1,181	Dawson Formation (lower part):	
Dawson Formation (upper part):		Shale, gray. . . . .	28 1,209	Sand and gray shale [Middle conglomerate, 908 to 1,055 feet.].	38 952
Clay, brown. . . . .	11 46	Lower conglomerate:		Lime. . . . .	1 953
Shale, blue. . . . .	579 625	Sand, fine and gray shale. . . . .	14 1,221	Sand and gray shale. . . . .	102 1,055
Sand. . . . .	13 638	Shale, gray. . . . .	28 1,251	Shale, gray. . . . .	9 1,064
Shale, blue. . . . .	299 937	Sand, fine. . . . .	6 1,257		
Dawson Formation (lower part):		Shale, gray, and fine sand. . . . .	20 1,277	<b>CS-67-7dbac. Alt. 5,520 ft.</b>	
Middle conglomerate:		Sand, coarse. . . . .	17 1,294	Colluvium:	
Sand. . . . .	30 967	Shale, gray. . . . .	5 1,299	Topsoil. . . . .	4 4
Shale, blue. . . . .	11 978	Sand, coarse. . . . .	5 1,304	Younger loess:	
Sand. . . . .	18 996	Shale, gray. . . . .	39 1,343	Clay, yellow. . . . .	24 28
Shale, blue. . . . .	9 1,005	Shale, gray, and sand. . . . .	23 1,366	Dawson Formation (upper part):	
<b>CS-67-3dscb. Alt. 5,555 ft.</b>		Laramie Formation:		Clay, sandy, brown. . . . .	4 32
Younger loess:		Shale, gray. . . . .	49 1,415	Sandstone, brown. . . . .	19 51
Topsoil. . . . .	4 4	Coal and gray shale. . . . .	8 1,421	Shale, blue. . . . .	4 55
Clay, sandy, stiff. . . . .	11 15	Shale, brown. . . . .	5 1,428	Shale, gray. . . . .	7 62
Louviers Alluvium:		Shale, gray. . . . .	46 1,474	Sandstone, gray. . . . .	4 66
Sand and gravel. . . . .	21 36	Sand, fine, white, and gray shale. . . . .	12 1,486	Shale, brown. . . . .	3 69
Dawson Formation (upper part):		Shale, gray. . . . .	22 1,508	Shale, gray. . . . .	9 79
Clay. . . . .	19 55	Sand, fine, white, and gray shale. . . . .	9 1,517	Sandstone, gray. . . . .	20 96
<b>CS-67-5bda. Alt. 5,560 ft.</b>		Shale, gray. . . . .	117 1,634	Shale, gray. . . . .	11 109
Piney Creek Alluvium:		Sand, fine, white, and gray shale. . . . .	20 1,654	Sandstone, gray. . . . .	6 115
Topsoil. . . . .	2 2	Shale, gray, and coal. . . . .	25 1,679	Shale, gray. . . . .	36 131
Clay, sandy, yellow. . . . .	5 7	Shale, gray. . . . .	21 1,700	Shale, brown. . . . .	17 188
Younger loess:		Shale, gray, and coal. . . . .	41 1,741	Shale, gray. . . . .	11 199
Clay, brown. . . . .	4 11	Shale, gray. . . . .	34 1,775	Sandstone, brown. . . . .	12 211
Clay, yellow. . . . .	16 27	Coal and gray shale. . . . .	35 1,810	Shale, gray. . . . .	19 230
Clay, brown. . . . .	11 38	Sandstone:		Shale, brown. . . . .	18 248
Clay, yellow. . . . .	5 43	Sand, fine. . . . .	85 1,895	Sandstone, brown. . . . .	8 256
Dawson Formation (upper part):		Shale, gray, and fine sand [A sandstone, 1,895 to 2,012 ft. c.]. . . . .	40 1,935	Shale, gray. . . . .	9 265
Clay, sandy, yellow. . . . .	7 50	Shale, gray. . . . .	19 1,954	Sandstone, gray. . . . .	4 273
Shale, gray. . . . .	4 54	Shale, gray. . . . .	58 2,012	Shale, brown. . . . .	4 277
Shale, blue. . . . .	5 59	Shale, gray. . . . .	21 2,033	Sandstone, gray. . . . .	32 309
Shale, sandy, brown. . . . .	4 63	Fox Hills Sandstone:		Shale, gray. . . . .	47 356
Shale, gray. . . . .	16 99	Milliken Sandstone Member:		Shale, brown. . . . .	4 360
Sandstone, gray. . . . .	27 126	Sand, fine, and gray shale. . . . .	47 2,080	Sandstone, gray. . . . .	17 377
Shale, gray. . . . .	47 173	Shale, gray. . . . .	12 2,092	Shale, sandy, gray. . . . .	15 392
Sandstone, gray. . . . .	11 184	<b>CS-67-6badb. Alt. 5,560 ft.</b>		Shale, gray. . . . .	140 532
Shale, gray, and sandstone. . . . .	21 205	Younger loess:		Shale, brown. . . . .	4 536
Shale, gray. . . . .	46 251	Topsoil. . . . .	2 2	Sandstone, gray. . . . .	6 542
Sand. . . . .	4 255	Dawson Formation (upper part):		Shale, gray. . . . .	67 609
Shale, gray, and sandstone. . . . .	15 270	Clay, sandy, yellow. . . . .	4 6	Sandstone and gray shale: in layers. . . . .	19 628
Shale, brown. . . . .	5 275	Sandstone, brown. . . . .	10 16	Shale, gray. . . . .	9 637
Sandstone, gray. . . . .	18 293	Clay, sandy, yellow. . . . .	1 19	Sandstone and gray shale: in layers. . . . .	12 649
Shale, brown. . . . .	6 299	Sandstone. . . . .	2 21	Shale, gray. . . . .	125 774
Shale, gray. . . . .	8 307	Gravel. . . . .	3 24		
Shale, brown. . . . .	7 314	Sandstone, brown. . . . .	11 35		
Sandstone, gray, and shale. . . . .	23 337	Clay, yellow. . . . .	23 58		
Shale, brown. . . . .	4 341	Clay, sandy, yellow. . . . .	11 69		
Shale, gray, and sandstone. . . . .	21 362	Sandstone, gray. . . . .	6 75		
Shale, brown. . . . .	3 365	Shale, blue. . . . .	3 78		
Shale, gray, and sandstone. . . . .	49 414	Sandstone, gray. . . . .	49 127		
Shale, brown. . . . .	6 420	Shale, blue. . . . .	5 132		
Shale, gray, and sandstone. . . . .	30 450	Sandstone, gray. . . . .	17 149		
Shale, gray. . . . .	15 465	Shale, brown. . . . .	6 155		
Shale, brown. . . . .	5 470	Shale, gray. . . . .	25 180		
Shale, gray. . . . .	10 480	Shale, brown. . . . .	8 188		
Shale, sandy, gray. . . . .	22 502	Sandstone, gray. . . . .	7 195		
Sandstone, gray. . . . .	9 511	Shale, gray. . . . .	18 213		
Shale, gray. . . . .	11 522	Shale, brown. . . . .	3 216		
Shale, sandy, gray. . . . .	55 577	Sandstone, gray, and shale. . . . .	70 286		
Sandstone, gray. . . . .	13 590	Shale, brown, and sandstone. . . . .	22 308		
Shale, gray. . . . .	13 603	Sandstone, gray. . . . .	17 345		
Sandstone, gray, and shale. . . . .	25 628	Shale, brown. . . . .	6 351		
Shale, brown. . . . .	6 634	Shale, gray, and sandstone. . . . .	87 438		
Shale, gray. . . . .	127 761	Shale, gray. . . . .	114 552		
Sand, fine, and gray shale. . . . .	17 778	Sandstone, gray. . . . .	15 567		
Shale, gray. . . . .	58 836	Shale, gray. . . . .	19 606		
Sand, fine, and gray shale. . . . .	24 860	Sandstone, gray. . . . .	3 609		
Shale, gray. . . . .	30 890	Shale, brown. . . . .	4 613		
Dawson Formation (lower part):		Shale, gray, and sandstone. . . . .	22 635		
Sand, coarse, and gray shale [Middle conglomerate, 890 to 1,080 feet.]. . . . .	12 922				
Shale, gray. . . . .	11 933				

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>CS-67-8bbas.--Continued</b>		<b>CS-67-8bbas.--Continued</b>		<b>CS-67-16bcdh.--Continued</b>	
Shale, sandy, gray	5 67	Coal	4 1,751	Shale, brown	4 529
Shale, gray	7 74	Shale, gray	15 1,766	Sandstone, gray	2 531
Shale, sandy, blue	8 82	Coal and gray shale	17 1,783	Shale, gray	16 547
Shale, brown	5 87	Sand, coal, and gray	23 1,806	Shale, brown	21 568
Shale, gray	15 102	shale	23 1,806	Shale, gray	34 602
Sandstone, gray	13 115	Sand, fine, white [8		Shale, brown	6 608
Sandstone, blue	2 117	sandstone, 1,806 to		Shale, gray	21 629
Sandstone, gray	10 127	1,978 feet.]	41 1,847	Shale, brown	5 634
Sandstone, brown	2 129	Sand, fine, white,		Shale, gray	30 724
Sandstone, gray	11 140	and gray shale	31 1,878	Shale, brown	4 728
Sandstone, blue	3 143	Shale, gray	15 1,893	Shale, gray	102 1,030
Sandstone, gray	17 160	Coal and gray shale	38 1,931	<b>Dawson Formation (lower</b>	
Sandstone, blue	5 165	Sand and gray shale		<b>part):</b>	
Shale, sandy, gray	5 170	[A sandstone, 1,931		Sand [Middle conglom-	
Sandstone, gray	7 177	to 1,989 feet.]	58 1,989	erate, 1,030 to	
Sandstone, brown	4 181	Shale, gray	3 1,992	1,200 feet.]	6 1,036
Shale, sandy, green	4 185	<b>CS-67-10aada. Alt. 5,620 ft.</b>		Shale, gray	10 1,046
Shale, sandy, gray	2 187	<b>Younger loess:</b>		Sand	9 1,055
Shale, brown	3 190	Clay	12 12	Shale, gray	9 1,064
Shale, sandy, gray	68 258	<b>Dawson Formation (upper</b>		Sand	7 1,071
Shale, sandy, blue	9 267	<b>part):</b>		Lime, sandy	1 1,072
Shale, sandy, brown	8 275	Claystone	18 30	Shale, gray	8 1,080
Shale, sandy, gray	135 410	Sandstone or compact		Sand	7 1,087
Shale, gray	6 416	sand	15 45	Shale, gray	18 1,105
Shale, sandy, gray	116 532	Shale	22 67	Sand	7 1,112
Sandstone, gray	11 543	<b>CS-67-10bcba. Alt. 5,640 ft.</b>		Shale, gray	20 1,132
Shale, sandy, gray	19 562	<b>Younger loess:</b>		Sand	9 1,141
Sandstone, gray	5 567	Soil	1 1	Shale, gray	10 1,151
Shale, brown	5 572	Clay, yellow and		Sand	3 1,154
Shale, gray	53 625	brown	48 49	Shale, gray	4 1,158
Shale, brown	9 634	<b>Dawson Formation (upper</b>		Sand	12 1,170
Shale, gray	49 683	<b>part):</b>		Shale, gray	22 1,192
Shale, sandy, gray	11 694	Shale, blue, gray,	71 120	Sand	8 1,200
Shale, gray	59 753	and brown		Shale, gray	10 1,210
Sand	9 762	Sandstone, gray	4 124	Sand, and gray shale	21 1,231
Shale, gray	10 772	Shale, gray and blue	125 249	Shale, gray	22 1,253
Sand	9 781	Sand	6 255	Sand, and gray shale	14 1,267
Shale, gray	42 823	Shale, blue and gray	39 294	Lime, sandy	2 1,269
Sand	10 833	Sandstone, gray	1 295	Shale, gray	7 1,276
Shale, gray	37 870	Shale, brown, gray,		Sand	7 1,283
Sand	1 871	and blue	300 595	Shale, gray, lime, and	
Shale, gray	18 889	sand	7 602	sand	9 1,292
Sand	11 900	Shale, gray and		Shale, gray	29 1,321
Shale, gray	5 905	brown	299 901	<b>Lower conglomerate:</b>	
Sand	7 912	Shale, gray and brown;		Sand	15 1,336
Shale, gray	1 913	contains streaks		Shale, gray	20 1,356
Sand	4 917	of medium sand	1 902	Sand	16 1,372
Shale, gray	32 949	sand, medium, light-		Shale, gray	4 1,376
Shale, gray, and sand;		gray	8 910	Sand	9 1,385
in layers	8 957	Shale, gray	115 1,025	Shale, gray	16 1,421
<b>Dawson Formation (lower</b>		<b>Dawson Formation (lower</b>		Sand	3 1,424
<b>part):</b>		<b>part):</b>		Shale, gray	11 1,455
Sand [Middle conglom-		Sand, medium to		Sand, fine	19 1,474
erate, 957 to 1,045		coarse, clean,		Shale, gray	24 1,498
feet.]	5 962	light-gray; contains		<b>CS-67-17cded. Alt. 5,543 ft.</b>	
Sand and gray shale;		layers of shale		<b>Younger loess:</b>	
in layers	3 965	[Middle conglom-		Soil	1 1
Shale, gray	17 982	erate, 1,025 to		Clay, yellow	18 19
Sand	3 985	1,265 feet.]	50 1,075	<b>Dawson Formation (upper</b>	
Shale, gray	10 995	Shale, gray; contains		<b>part):</b>	
Sand	5 1,000	streaks of sand	70 1,145	Shale, brown, blue,	
Shale, gray	4 1,004	Sand, fine to coarse,		and gray	121 140
Sand	14 1,018	interlayered with		Sandstone, gray	23 163
Shale, gray	23 1,041	gray shale	120 1,265	Shale, blue, brown,	
Sand	4 1,045	Shale, gray; contains		and gray	169 332
Shale, gray	30 1,075	streaks of gray		Sandstone, gray, and	
Sand and gray shale;		fine sand	95 1,350	shale	24 356
in layers	23 1,098	<b>Lower conglomerate:</b>		Shale, brown and gray	174 730
Shale, gray	17 1,115	Sand, fine, clean,		Sand, medium to coarse,	
Sand and gray shale;		gray	20 1,370	clean, gray	30 760
in layers	6 1,121	Sand, fine, gray,		Shale, blue and gray	120 880
Shale, gray	12 1,133	interbedded with		<b>Dawson Formation (lower</b>	
<b>Lower conglomerate:</b>		gray shale	25 1,395	<b>part):</b>	
Sand	11 1,144	Shale, gray	5 1,400	Sand, medium to	
Shale, gray	11 1,155	<b>CS-67-16bcdh. Alt. 5,696 ft.</b>		coarse, clean,	
Sand and gray shale;		<b>Younger loess:</b>		light-gray [Middle	
in layers	34 1,189	Soil	1 1	conglomerate, 880	
Sand and gray shale	125 1,314	Clay, yellow	51 52	to 1,083 feet.]	14 894
Shale, gray	7 1,321	<b>Dawson Formation (upper</b>		Shale, silty, gray,	
Sand	6 1,327	<b>part):</b>		and clay	36 930
Shale, gray	13 1,340	Sandstone, brown	4 56	Sand, fine to coarse,	
Sand and gray shale	15 1,355	Clay, yellow	4 60	predominantly clean,	
<b>Laramie Formation:</b>		Shale, blue	5 65	gray; contains	
Shale, gray	33 1,388	Shale, gray	13 78	layers of gray,	
Sand and gray shale	9 1,397	Sandstone, gray	3 81	silty shale and	
Shale, gray	27 1,424	Shale, gray	23 104	clay	130 1,060
Coal and gray shale	12 1,436	Shale, blue	4 108	Shale, silty, gray;	
Shale, gray	26 1,462	Shale, gray	28 136	contains layers of	
Shale, gray, and fine		Shale, blue	11 147	gray fine to medium	
sand	6 1,468	Shale, gray	29 176	silty sand	8 1,068
Shale, gray	93 1,561	Shale, blue	3 179	Sand, medium to coarse,	
Shale, sandy, gray	25 1,586	Shale, gray	170 349	clean, gray; contains	
Shale, gray	16 1,602	Sandstone, gray	12 361	layers of silty	
Coal, sand, and gray		Shale, gray	66 427	shale	15 1,083
shale	38 1,640	Shale, brown	4 431	Shale, silty, gray	119 1,202
Coal and gray shale	5 1,645	Shale, gray	37 468	<b>Lower conglomerate:</b>	
Shale, gray	35 1,680	Shale, brown	4 472	Sand, medium to	
Sand	6 1,686	Shale, gray	4 476	coarse, clean,	
Shale, gray	3 1,689	Shale, gray	14 490	light-gray; contains	
Sand and gray shale	6 1,695	Sandstone, gray	35 525	thin beds of sandy	
Shale, gray	3 1,698			and silty shale	68 1,270
Sand	4 1,702			Shale, silty to clayey,	
Shale, gray	45 1,747			gray; contains layers	
				of fine, silty, gray	
				sand	105 1,375

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CS-67-19bbbbb. Alt. 5,494.3 ft. Piney Creek Alluvium: Topsoil. . . . . 5 5 Broadway Alluvium: Sand. . . . . 17 22 Dawson Formation (upper part): Clay, red, yellow, blue, and green. . . . . 106 128 Shale, blue, and streaks of sand- stone. . . . . 53 181 Shale, blue, and silty streaks. . . . . 132 313 Shale, blue. . . . . 14 327 Sand, silty. . . . . 17 344 Shale, blue. . . . . 44 388 Shale, sandy. . . . . 51 439 Shale, blue. . . . . 70 509 Sand, silty, hard. . . . . 25 534 Shale, blue. . . . . 56 590 Sand, silty, hard. . . . . 15 605 Shale, blue. . . . . 17 622 Sand, silty, hard. . . . . 20 642 Shale, blue. . . . . 55 697 Sand, silty, tight, and streaks of shale. . . . . 31 728 Shale, blue. . . . . 13 741 Sand, silty, tight, and blue streaks of shale. . . . . 47 788 Shale, blue. . . . . 14 802 Dawson Formation (lower part): Middle conglomerate: Sand. . . . . 68 870 Shale, blue. . . . . 16 886		CS-67-21acbb. --Continued Shale, gray. . . . . 10 890 Dawson Formation (lower part): Middle conglomerate: Sand, coarse, and gray shale. . . . . 43 933 Limestone. . . . . 3 936 Sand, coarse, and gray shale. . . . . 7 943 Shale, gray. . . . . 24 967 Sand, coarse, and gray shale. . . . . 103 1,070 Shale, gray. . . . . 27 1,097 Sand, coarse, and gray shale. . . . . 47 1,144 Limestone. . . . . 3 1,147 Sand, coarse, and gray shale. . . . . 20 1,167 Limestone. . . . . 1 1,168 Sand, coarse, and gray shale. . . . . 29 1,197 Shale, gray. . . . . 9 1,206 CS-67-14bddd. Alt. 5,865 ft. Younger loess: Topsoil. . . . . 2 2 Dawson Formation (upper part): Sandstone, yellow. . . . . 10 12 Sand. . . . . 5 17 Sandstone, brown. . . . . 7 24 Sand. . . . . 6 30 Gravel. . . . . 10 40 Clay, sandy, gray. . . . . 3 43 Sandstone, yellow. . . . . 7 50 Clay, sandy, gray. . . . . 6 56 Shale, gray. . . . . 25 81 Shale, sandy, gray. . . . . 12 93 Shale, gray. . . . . 23 116 Sandstone, gray. . . . . 36 152 Shale, gray. . . . . 9 161 Shale, brown. . . . . 7 168 Shale, sandy, gray. . . . . 11 179 Sand, coarse. . . . . 6 185 Shale, gray. . . . . 55 240 Shale, sandy, gray, and sandstone. . . . . 12 252 Sand, coarse [Upper conglomerate, 252 to 420 feet.]. . . . . 42 294 Shale, gray, and coarse sand. . . . . 11 305 Shale, sandy, gray. . . . . 14 319 Sand, coarse, and gray shale. . . . . 9 328 Shale, green. . . . . 4 332 Sandstone, gray, and coal. . . . . 8 340 Shale, brown. . . . . 7 347 Shale, sandy, gray. . . . . 14 361 Sand, coarse. . . . . 6 367 Sandstone, gray and coal. . . . . 5 372 Sand, coarse. . . . . 6 378 Shale, gray, and coal. . . . . 8 386 Shale, gray. . . . . 19 405 Sand, coarse, and gray shale. . . . . 15 420 Shale, gray. . . . . 11 431 Shale, sandy, gray. . . . . 28 459 Shale, gray. . . . . 12 491 Sandstone, gray, and shale. . . . . 15 506 Shale, gray. . . . . 18 524 Sandstone, gray. . . . . 6 530 Shale, sandy, gray. . . . . 19 549 Sandstone, gray. . . . . 2 551 Shale, sandy, gray. . . . . 15 566 Shale, gray. . . . . 12 578 Shale, sandy, gray. . . . . 20 598 Sand, coarse, and gray shale. . . . . 12 610 Shale, gray. . . . . 19 629 Sand, coarse, and gray shale. . . . . 14 643 Shale, sandy, gray. . . . . 15 658 Shale, gray. . . . . 11 669 Sandstone, gray. . . . . 7 676 Shale, sandy, gray, and sandstone. . . . . 15 691 Shale, gray. . . . . 7 698 Shale, sandy, brown. . . . . 10 708 Shale, sandy, gray. . . . . 12 720 Shale, sandy, brown. . . . . 8 728 Sand, medium to coarse, and gray shale. . . . . 21 749 Shale, sandy, gray. . . . . 6 755 Shale, gray, and sandstone. . . . . 13 768 Sand, coarse, and gray shale. . . . . 34 802 Sand, fine, and gray shale. . . . . 26 828		CS-67-14bddd. --Continued Shale, brown. . . . . 7 835 Shale, gray. . . . . 35 870 Sand, fine to medium. . . . . 5 876 Shale, gray. . . . . 121 997 Sand, coarse, and gray shale. . . . . 20 1,017 Shale, gray. . . . . 50 1,067 Sand, medium to coarse shale, gray. . . . . 16 1,121 Sand, coarse. . . . . 12 1,133 Shale, gray. . . . . 44 1,177 Dawson Formation (lower part): Sand, coarse, and gray shale [Middle conglomerate, 1,182 to 1,400 feet.]. . . . . 54 1,231 Shale, gray. . . . . 17 1,248 Sand, coarse, and gray shale. . . . . 102 1,350 Sand, fine to medium, and gray shale. . . . . 48 1,398 Shale, gray. . . . . 22 1,420 Sand, fine to coarse, and gray shale. . . . . 60 1,480 Shale, gray. . . . . 12 1,492 Lower conglomerate: Sand, fine, and gray shale. . . . . 54 1,546 Shale, gray. . . . . 11 1,557 Sand, fine to coarse, and gray shale. . . . . 53 1,610 Shale, gray. . . . . 9 1,619 CS-68-1ccddd. Alt. 5,410 ft. Piney Creek Alluvium: Clay, dark-brown. . . . . 15 15 Dawson Formation: Shale, brown. . . . . 14 29 CS-68-1dbbb. Alt. 5,475 ft. Younger loess: Topsoil. . . . . 2 2 Clay, sandy, brown. . . . . 26 28 Clay, yellow. . . . . 12 40 Dawson Formation (upper part): Sandstone, brown. . . . . 3 43 Clay, sandy, brown. . . . . 28 71 Shale, blue. . . . . 6 77 Shale, sandy, gray, and sandstone. . . . . 6 83 Shale, green. . . . . 3 86 Sandstone, gray, and shale. . . . . 106 192 Shale, brown and gray. . . . . 27 219 Sandstone, gray, and shale. . . . . 66 285 Shale, gray. . . . . 56 341 Sandstone, gray. . . . . 110 451 Shale, gray. . . . . 71 522 Shale, sandy, gray. . . . . 15 537 Shale, gray. . . . . 120 657 Dawson Formation (lower part): Sand, coarse, and gray shale [Middle conglomerate, 676 to 915 feet.]. . . . . 34 991 Shale, gray. . . . . 17 708 Sand, fine, and gray sandy shale. . . . . 32 740 Lime. . . . . 1 741 Sand, coarse, and gray shale. . . . . 10 751 Shale, gray. . . . . 9 760 Shale, sandy, gray. . . . . 12 772 Sand, coarse, and gray shale. . . . . 10 782 Shale, gray. . . . . 43 825 Sand, fine to coarse, and gray shale. . . . . 18 843 Shale, gray. . . . . 17 860 Shale, sandy, gray. . . . . 22 882 Sand, coarse, and gray shale. . . . . 18 900 Sand, fine, and sandy shale. . . . . 15 915 Lime. . . . . 1 916 Sand, fine to coarse, and gray shale. . . . . 79 995 Shale, gray. . . . . 89 1,084 Lime [Lower conglom- erate, top at 1,082 feet.]. . . . . 1 1,085 Shale, gray. . . . . 91 1,176 Sand, fine, and gray shale. . . . . 11 1,187 Shale, gray. . . . . 4 1,191 CS-68-2acbb. Alt. 5,405 ft. Colluvium and Younger loess, undifferentiated: Soil, surface. . . . . 20 20	



Table 1.--Logs of wells and test holes--Continued

	Thick- ness	Depth		Thick- ness	Depth		Thick- ness	Depth
<b>CS-68-2acch. --Continued</b>			<b>CS-68-2ccag2. --Continued</b>			<b>CS-68-2ccag2. --Continued</b>		
Dawson Formation (upper part):			Shale, gray . . . . . 5 595			Sand, slightly shaly, fine to coarse, angular to sub-angular, white to glassy; contains 4 percent dark minerals (yielded large flow of water at 1,627 feet). . . . . 59 1,684		
Sandrock, blue . . . . . 20 40			Sand (water-bearing, flows 6 gpm at surface). . . . . 3 598			Fox Hills Sandstone:		
Shale, blue . . . . . 7 47			Shale, gray . . . . . 79 677			Milliken Sandstone Member:		
Sandrock, blue . . . . . 14 81			Sand and shale (water-bearing, yields 6 gpm). . . . . 30 707			Sand, fine to coarse, angular to sub-angular, white to glassy; contains 4 percent dark minerals (increase in flow of water began at 1,686 and continued to 1,728 feet). . . . . 44 1,728		
Shale . . . . . 9 90			Shale, gray . . . . . 49 756			<b>CS-68-2dbca. Alt. 5,352 ft.</b>		
Sandrock, gray . . . . . 28 118			Sand (yields no water) . . . . . 7 763			Piney Creek Alluvium:		
Shale, blue . . . . . 8 126			Shale, gray . . . . . 77 840			Topsoil. . . . . 10 10		
Sandrock, blue . . . . . 13 139			Lower conglomerate:			Broadway Alluvium:		
Clay and shale, blue . . . . . 41 180			Sand, gray (water-bearing). . . . . 3 843			Sand . . . . . 2 12		
Sandrock, blue . . . . . 12 192			Shale, gray and brown . . . . . 186 1,029			Louviers Alluvium:		
Shale, sandy . . . . . 88 280			Sand, gray (yields 3 gpm). . . . . 8 1,037			Clay . . . . . 4 16		
Sandrock, hard, gray . . . . . 13 293			Sand and shale. . . . . 28 1,065			Sand, heavy, and light gravel . . . . . 11 27		
Shale, blue . . . . . 82 375			Laramie Formation:			Dawson Formation (upper part):		
Sandrock, blue . . . . . 20 395			Shale, gray . . . . . 80 1,145			Sandstone at 27 feet		
Clay, gray . . . . . 145 540			Coal, thin strata . . . . . 5 1,150			<b>CS-68-3baba. Alt. 5,315 ft.</b>		
Dawson Formation (lower part):			Shale, sticky, gray. . . . . 15 1,165			Broadway Alluvium:		
Sand [Middle conglomerate, 540 to 788 feet.] (water-bearing). . . . . 6 546			Sand (water-bearing). . . . . 1 1,166			Topsoil. . . . . 4.5 4.5		
Clay and shale . . . . . 124 670			Shale, gray . . . . . 3 1,169			Sand, fine . . . . . 7.5 12		
Sand (water-bearing). . . . . 8 678			Sand (water-bearing, heavy flow at surface). . . . . 16 1,185			Louviers Alluvium:		
Clay and shale . . . . . 52 730			Sand and shale (increase in flow at 1,209 feet). . . . . 41 1,226			Clay, brown. . . . . 16 28		
Sand (water-bearing). . . . . 15 745			Shale, gray . . . . . 12 1,238			Sand and gravel. . . . . 16 44		
Clay and shale . . . . . 25 770			Coal. . . . . 10 1,248			Clay, brown. . . . . 7 51		
Sand (water-bearing). . . . . 18 788			Shale, gray, brown, or black. . . . . 77 1,325			Gravel and boulders. . . . . 5 56		
Clay and shale, gray . . . . . 162 950			Coal. . . . . 6 1,331			<b>CS-68-4abdb1. Alt. 5,285 ft.</b>		
Lower conglomerate:			Shale, gray, and sand. . . . . 39 1,370			Broadway and Louviers Alluvium, undifferentiated:		
Sand (water-bearing, well flowed 20 gpm at surface). . . . . 20 970			Shale, brown. . . . . 35 1,405			Sand and gravel. . . . . 37 37		
Clay and shale . . . . . 115 1,085			Coal. . . . . 3 1,408			Dawson Formation:		
Sand (water-bearing). . . . . 17 1,102			Shale, brown. . . . . 1 1,409			Shale, gray. . . . . 33 70		
Laramie Formation:			Coal. . . . . 2 1,411			<b>CS-68-4bdec. Alt. 5,282 ft.</b>		
Shale, blue. . . . . 48 1,150			Shale and shells; contains coal. . . . . 29 1,440			Post-Piney Creek Alluvium:		
Limestone. . . . . 5 1,155			Shale, gray. . . . . 8 1,448			Topsoil. . . . . 5.5 5.5		
Shale, brown. . . . . 95 1,250			Shale, brown, and coal. . . . . 8 1,456			Broadway and Louviers Alluvium, undifferentiated:		
Coal. . . . . 10 1,260			Sand (water-bearing, flowed at surface). . . . . 1 1,457			Boulders and sand. . . . . 11.5 17		
Shale, brown. . . . . 70 1,330			Shale, hard, gray-brown. . . . . 4 1,461			Clay . . . . . 2 19		
Limestone. . . . . 5 1,335			Shale, brown, hard, mixed with coal. . . . . 7 1,468			Gravel . . . . . 7 26		
Shale, gray. . . . . 15 1,350			Coal and brown shale. . . . . 5 1,473			Clay, blue . . . . . 5 31		
Coal. . . . . 5 1,355			Shale, brown. . . . . 11 1,484			Gravel . . . . . 8 39		
Limestone. . . . . 10 1,365			Sand, medium to very coarse, soft, gray to white; 95 percent of quartz grains subangular to rounded; contains coal; (water-bearing, water rose 350 feet in 2 hours). . . . . 5 1,489			Dawson Formation:		
Shale, chocolate. . . . . 15 1,380			Sand, medium to coarse, gray, white, and colorless, subangular to rounded. . . . . 7 1,496			Shale at 39.0 feet		
Coal. . . . . 5 1,385			Coal, hard. . . . . 6 1,502			<b>CS-68-4ccdc. Alt. 5,290.1 ft.</b>		
Shale, gray. . . . . 45 1,430			Shale, hard, impervious. . . . . 5 1,507			Post-Piney Creek alluvium:		
Sandrock, dark-gray. . . . . 5 1,435			Coal. . . . . 3 1,510			Earth. . . . . 5 5		
Shale, chocolate. . . . . 15 1,450			Sand, medium to coarse, subangular to rounded, white to glassy; 3 to 4 percent dark minerals give a salt and pepper appearance [8 sandstone, 1,510 to 1,597 feet]. . . . . 89 1,599			Broadway Alluvium:		
Coal. . . . . 5 1,455			Shale, sandy, clayey, gray and brown. . . . . 20 1,619			Sand, fine . . . . . 15 20		
Limestone, shell, black. . . . . 5 1,460			A sandstone:			Louviers Alluvium:		
Shale, chocolate. . . . . 20 1,480			Sand, medium to coarse, angular to subangular brown to glassy, and light-grayish-brown and dark-gray sandy to clayey shale; contains 5 percent dark minerals, limonite particles, and light-gray splintery shale . . . . . 6 1,625			Silt and clay. . . . . 5 20		
Coal. . . . . 5 1,485						Sand . . . . . 5 25		
Shale, chocolate. . . . . 29 1,514						Clay . . . . . 3 28		
Sandrock, hard . . . . . 3 1,517						Sand . . . . . 4 32		
Shale, gray, and coal. . . . . 13 1,530						Shale at 12 feet		
Limestone, shell. . . . . 8 1,538						<b>CS-68-5baba. Alt. 5,309.8 ft.</b>		
Sand [B sandstone, 1,538 to 1,627 feet.] (water-bearing). . . . . 89 1,627						Post-Piney Creek alluvium:		
Shale, chocolate . . . . . 18 1,645						Silt, slightly sandy, calcareous, dark-yellowish-brown; contains montmorillonite. . . . . 5 5		
A sandstone:						Louviers Alluvium:		
Sandrock, dark-gray, hard . . . . . 8 1,653						Gravel, very fine to coarse, angular to subrounded . . . . . 8 13		
Shale, sandy, gray . . . . . 12 1,665								
Sand (water-bearing). . . . . 45 1,710								
Shale, chocolate . . . . . 7 1,717								
Shale, sandy, gray . . . . . 4 1,721								
Fox Hills Sandstone:								
Sand [Milliken Sandstone Member, 1,721 to 1,785 feet.] (water-bearing). . . . . 64 1,785								
Shale, gray . . . . . 12 1,797								
<b>CS-68-2ccag2. Alt. 5,390 ft.</b>								
Younger loess:								
Soil, sandy, caves . . . . . 35 35								
Dawson Formation (upper part):								
Shale, blue (yields a little water at 67, 80, and 100 feet). . . . . 65 100								
Shale, blue, gray, brown, and green . . . . . 220 320								
Shale, gray. . . . . 110 430								
Sand (water-bearing). . . . . 15 445								
Shale, sticky, gray. . . . . 45 490								
Sand, caves. . . . . 10 500								
Shale, sandy . . . . . 55 555								
Sand and shale . . . . . 12 567								
Dawson Formation (lower part):								
Sand [Middle conglomerate, 507 to 707 feet.] (water-bearing). . . . . 10 577								
Shale, gray. . . . . 10 587								
Sand (water-bearing, water rose 550 feet). . . . . 3 590								

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>CS-68-5bada. Alt. 5,309.8 ft.</b>					
Silt, sandy and gravelly, dark-yellowish-brown.	5.5	18.5	<b>CS-68-5bada. --Continued</b>		
Dawson Formation (upper part):			Silt, slightly sandy, micaceous, dark-yellowish-brown; contains montmorillonite; pale-yellowish-brown from 7.5 to 10.0 feet.	5	10
Shale, clay, non-calcareous, dusky-yellow; contains montmorillonite.	4	22.5	Broadway Alluvium:		
			Sand and very fine to coarse gravel, poorly sorted, silty, arkosic.	5	15
<b>CS-68-5bada. Alt. 5,301.6 ft.</b>			Louviers Alluvium:		
Post-Piney Creek alluvium:			Cobbles, coarse gravel, and light-tan clay, mixed.	2	17
Silt, carbonaceous, micaceous, very calcareous, dark-yellowish-brown; smells like swamp mud between 5 and 7 feet.	7	7	Sand, poorly-sorted, arkosic, and very silty, arkosic.	3	20
Broadway Alluvium:			very fine gravel.	3	20
Sand, fine to very coarse, angular to subangular, arkosic, slightly micaceous, and about 10 percent very fine to fine gravel; contains medium gravel between 15.0 and 16.0 feet.	10.5	17.5	Sand, very coarse, arkosic, subangular, clean, and very fine to fine gravel; contains cobbles and coarse gravel at intervals from 29 to 39 feet.	20	40
Louviers Alluvium:			Sand, poorly sorted, silty, arkosic, subangular.	2.5	42.5
Silt, sandy, non-calcareous, moderate-yellowish-brown.	5	22.5	Dawson Formation (upper part):		
Sand, very coarse, fairly well-sorted, angular to sub-angular, arkosic, and some very fine gravel.	3.5	26	Shale, silty, dusky-yellow; contains montmorillonite and small, hard, concretions.	5	47.5
Gravel, coarse, and cobbles.	6.5	32.5	<b>CS-68-5cddd. Alt. 5,369 ft.</b>		
Dawson Formation (upper part):			Fill dirt.	18	18
Shale, clay, dark-yellowish-brown, noncalcareous; contains montmorillonite.	5	17.5	Dawson Formation (upper part):		
			Clay, brown.	16	34
<b>CS-68-5bdad. Alt. 5,307.3 ft.</b>			Gravel.	9	43
Piney Creek Alluvium:			Shale, brown.	2	45
Silt, slightly sandy, micaceous, calcareous, dark-yellowish-brown.	3	3	<b>CS-68-5dbbb. Alt. 5,349.7 ft.</b>		
Silt, compact, very calcareous, pale-yellowish-brown; contains montmorillonite.	7	10	Slocum Alluvium:		
Broadway Alluvium:			Clay, tough, sandy, brown.	2.5	2.5
Gravel, very fine to coarse, arkosic, subangular to subrounded; subrounded to rounded between 13.5 and 15 feet.	15	15	Silt, sandy, micaceous, calcareous, pale-yellowish-brown.	2.5	5
Louviers Alluvium:			Silt, very sandy, very calcareous, pale-yellowish-brown.	5	10
Clay, very sandy, brown, mixed with very fine to medium gravel.	3.5	19.5	Gravel, very fine to very coarse, arkosic, subangular to subrounded, and cobbles.	3	13
Gravel, very fine to medium, arkosic, subangular to subrounded, loose, clean.	4	22.5	Gravel, very fine to fine, fairly well-sorted, subangular to subrounded; contains cobbles.	2	15
Gravel, very fine to coarse, arkosic, subangular to well-rounded, and about 10 percent medium to coarse, angular to subangular sand.	3.5	26	Gravel, very fine to coarse, arkosic, subangular to angular, very coarse sand, and cobbles.	4	19
Cobbles, boulders, clean, and very fine to very coarse arkosic, subangular to well-rounded gravel.	11	37	Dawson Formation (upper part):		
Dawson Formation (upper part):			Shale, silty, sandy, micaceous, weathered, pale-yellowish-brown.	3.5	22.5
Shale, silty, non-calcareous, moderate-greenish-yellow.	5.5	42.5	Shale, silty, moderate-yellowish-brown, noncalcareous; contains montmorillonite.	2.5	25
<b>CS-68-5bdad. Alt. 5,311.2 ft.</b>			<b>CS-68-5dcbh. Alt. 5,381 ft.</b>		
Fill, sand, and gravel.	5	5	Slocum Alluvium:		
Piney Creek Alluvium:			Clay.	15	15
			Sand, gravel, and boulders.	43	58
			Dawson Formation (upper part):		
			Clay.	2	60
			Shale.	16	96
			Shale, hard.	1	97
			Shale.	3	100
			<b>CS-68-7ccad. Alt. 5,530 ft.</b>		
			Younger loess:		
			Topsoil, dark clay.	4	4
			Clay, yellow.	16	20
			<b>CS-68-7ccad. --Continued</b>		
			Dawson Formation (upper part):		
			Shale, sandy, hard yellow.	7	27
			Shale, brown and yellow.	10	57
			Shale, hard, blue.	14	71
			Shale, hard, brown; contains soft streaks.	11	92
			Shale, gray and blue; contains some sand.	163	245
			Sandrock, coarse-grained; contains streaks of shale.	13	258
			Shale, gray.	26	284
			Rock, hard.	2	286
			Sand and some blue clay.	5	291
			Shale, gray, and blue clay.	19	310
			Sand.	1	313
			Shale, gray and blue.	9	322
			Sand.	2	324
			Shale, gray and brown, soft, in part sandy.	36	360
			Shale; contains streaks of sand.	10	370
			Shale, gray.	30	400
			Shale; contains streaks of sand.	11	411
			Sand.	3	414
			Shale; contains streaks of sand.	16	430
			Shale, firm, gray; contains streaks of sand.	21	451
			Dawson Formation (lower part):		
			Sand [Middle conglomerate, 451 to 499 feet.]	14	465
			Shale, sandy.	4	469
			Sand.	5	474
			Shale and silt.	7	481
			Sand.	5	486
			Shale, sandy.	2	488
			Sand.	11	499
			Shale, sandy, clay-stone, siltstone, and silty sand.	96	595
			Lower conglomerate:		
			Sand, coarse.	11	606
			Shale.	10	616
			Sand, coarse; contains streaks of shale.	47	663
			Shale, sandy, interbedded with sandstone.	57	720
			Sand.	10	730
			Shale.	8	738
			Sand; contains pyrite.	6	744
			Shale, hard, gray, and blue soft clay.	26	770
			<b>CS-68-7ccbb. Alt. 5,540 ft.</b>		
			Younger loess:		
			Soil.	2	2
			Clay, yellow.	28	10
			Dawson Formation (upper part):		
			Shale, brown.	8	38
			Sandstone, gray.	11	49
			Clay, yellow.	7	56
			Shale, gray.	5	61
			Sandstone, gray.	16	77
			Shale, brown.	6	83
			Shale, gray.	7	90
			Sandstone, gray.	6	96
			Shale, brown.	2	98
			Shale, gray.	4	102
			Sandstone, gray.	3	105
			Shale, gray.	10	115
			Shale, blue.	6	121
			Shale, gray.	19	140
			Sandstone, gray.	3	143
			Shale, gray.	15	158
			Sandstone, gray.	10	168
			Shale, gray.	18	186
			Sandstone, gray.	4	190
			Shale, gray.	37	227
			Sandstone, gray.	6	233
			Shale, gray.	5	238
			Sandstone, gray.	4	242
			Shale, gray.	6	248
			Sandstone, gray.	12	260
			Shale, gray.	27	287
			Shale, sandy, gray.	4	291
			Sand.	7	298
			Shale, gray.	39	337
			Shale, blue.	7	344
			Shale, gray.	26	370
			Sandstone, gray.	8	378

Table 1.--Logs of wells and test holes--Continued

	Thick- ness	Depth		Thick- ness	Depth		Thick- ness	Depth
<b>CS-68-7ccbb.</b> --Continued			<b>CS-68-8accc.</b> Alt. 5,320.5 ft.			<b>CS-68-8bcbg.</b> --Continued		
Shale, gray. . . . .	47	425	Piney Creek Alluvium:			Shale, gray. . . . .	35	177
Dawson Formation (lower			Clay, silty, dark-			Shale, soft, brown. . . .	10	187
part):			brown; contains			Sandstone, fine-		
Sand (middle conglomer-			coarse sand and			grained, white. . . . .	21	408
erate, 425 to 541			very fine gravel. . . . .	6	6	Shale, blue. . . . .	3	411
feet.) . . . . .	1	428	Broadway Alluvium:			Sandstone, fine-		
Shale, gray. . . . .	15	443	Gravel, very fine to			grained, white. . . . .	3	414
Sand. . . . .	7	450	coarse, angular to			Shale, gray. . . . .	17	451
Shale, gray. . . . .	8	458	subrounded, and			Sandstone, fine-		
Sand. . . . .	4	462	clay. . . . .	5	6.5	grained, white. . . . .	11	462
Shale, gray. . . . .	22	484	Gravel, fine to coarse,			Shale, gray. . . . .	9	471
Sand. . . . .	8	492	angular to well-			Limestone. . . . .	1	472
Shale, gray. . . . .	32	524	rounded. . . . .	5.5	12	Shale, gray. . . . .	3	475
Sand. . . . .	9	533	Sand, medium to very			Sandstone, fine-		
Sand and gray shale;			coarse, and very			grained, white. . . . .	3	478
in alternate layers. . .	8	541	fine, angular to			Shale and white fine		
Sandstone, gray. . . . .	4	545	subrounded gravel. . .	4.5	16.5	sand; in alternate		
Shale, gray. . . . .	19	564	Louviers Alluvium:			layers. . . . .	16	494
Shale, sandy, gray. . .	10	574	Clay, very sandy,					
Shale, gray. . . . .	32	606	tan; contains			<b>CS-68-8bcda.</b> Alt. 5,356.1 ft.		
Sandstone, gray. . . . .	11	617	streaks of sand. . . .	11	27.5	Slocum Alluvium:		
Shale, gray. . . . .	21	638	Sand, fine, loose. . .	5.5	33	Silt, sandy, very		
Lower conglomerate:			Clay, hard. . . . .	2	35	calcareous, clayey,		
Sand, fine, white. . . .	9	647	Gravel, very fine,			pale-yellowish-		
Shale, gray. . . . .	4	651	angular to sub-			brown; contains		
Sand, fine, white. . . .	6	657	rounded, and very			montmorillonite. . . .	1	1
Shale, gray. . . . .	76	733	coarse arkosic			Dawson Formation (upper		
Shale, sandy, gray. . .	4	737	sand. . . . .	16	51	part):		
Shale, gray. . . . .	6	743	Gravel, very fine to			Shale, silty,		
Shale, sandy, gray. . .	8	751	very coarse, angular			slightly sandy,		
Shale, gray. . . . .	12	763	to well-rounded;			clayey, very		
Sand, fine, white. . . .	4	767	contains cobbles			calcareous, pale-		
Shale, gray. . . . .	4	771	and very-coarse			yellowish-brown;		
Sand, fine, white. . . .	5	776	sand. . . . .	6	57	contains mont-		
Shale, gray. . . . .	11	787	Dawson Formation (upper			morillonite. . . . .	4	5
Sand, fine, white. . . .	6	793	part):					
Laramie Formation:			Shale, hard, blue;			<b>CS-68-8cada.</b> Alt. 5,333.0 ft.		
Shale, gray. . . . .	129	922	contains small			Piney Creek Alluvium:		
Lime. . . . .	2	924	concretions. . . . .	3	60	Surface. . . . .	6	6
Sand, fine, white. . . .	1	927	<b>CS-68-8acdc.</b> Alt. 5,316.6 ft.			Broadway and Louviers		
Shale, gray. . . . .	94	1,021	Piney Creek Alluvium:			Alluvium, undiffer-		
Sand, fine, white. . . .	16	1,037	Clay, sandy, brown;			entiated:		
Shale, gray. . . . .	25	1,062	contains fine			Gravel and boulders. . .	32	38
Coal. . . . .	3	1,065	gravel. . . . .	3.5	3.5	Clay. . . . .	4	42
Shale, gray. . . . .	15	1,080	Broadway Alluvium:			Gravel. . . . .	14	56
<b>CS-68-7cccg.</b> Alt. 5,343 ft.			Gravel, very fine to			<b>CS-68-9abba.</b> Alt. 5,320 ft.		
Younger loess, Slocum Alluvium,			coarse, angular to			Broadway Alluvium:		
and Dawson Formation,			subrounded, clean,			Topsoil. . . . .	3	3
undifferentiated:			loose; contains			Gravel. . . . .	15	18
Surface soil, clay,			fine to very			Louviers Alluvium:		
boulders, and			coarse sand. . . . .	6.5	10	Clay. . . . .	2	20
sandstone. . . . .	50	50	Louviers Alluvium:			Gravel. . . . .	8	28
Dawson Formation (upper			Clay, very sandy, tan;			Gravel, hard. . . . .	10	38
and lower parts, undiffer-			contains medium to			Dawson Formation (upper		
entiated):			coarse sand and			part):		
Shale, sandy, broken. .	15	85	very fine gravel. . . .	5	13	Clay, brown. . . . .	2	40
Shale, hard, black. . .	25	110	Clay, sandy, gray,			Shale. . . . .	3	43
Shale. . . . .	20	130	and medium sand. . .	11	26	<b>CS-68-9bdcg.</b> Alt. 5,320.6 ft.		
Shale, sandy shale,			Gravel, very fine,			Fill. . . . .	4	4
and clay. . . . .	100	230	angular, and			Piney Creek Alluvium:		
Clay. . . . .	170	400	medium to coarse			Silt, sandy, dark-		
Shale, sandy. . . . .	20	420	sand. . . . .	23	49	yellowish-brown;		
Clay. . . . .	62	482	Dawson Formation (upper			contains coal. . . . .	8.5	12.5
Shale and coal. . . . .	3	485	part):			Silt, very sandy and		
Clay. . . . .	15	500	Shale, hard, sandy,			gravelly, slightly		
Sand. . . . .	20	520	platy, gray. . . . .	3.5	52.5	calcareous, pale-		
Clay and sandy shale. .	30	550	<b>CS-68-8bcbg.</b> Alt. 5,404.7 ft.			yellowish-brown;		
Shale, sandy, and			Slocum Alluvium:			contains mont-		
clay. . . . .	120	670	Clay, sandy. . . . .	9	9	morillonite. . . . .	2.5	15
Shale. . . . .	60	730	Dawson Formation (upper			Louviers Alluvium:		
Clay. . . . .	90	820	part):			Gravel, fine to very		
Laramie Formation:			Shale, brown. . . . .	19	28	coarse, well-		
Shale. . . . .	110	930	Sandstone, blue. . . .	15	43	rounded, arkosic,		
Clay. . . . .	10	940	Shale, brown and blue	17	60	loose, and cobbles. . .	8.5	23.5
Shale. . . . .	280	1,220	Sandstone, gray. . . .	3	63	Gravel, very fine to		
Clay, blue. . . . .	110	1,330	Shale, brown. . . . .	9	72	very coarse, arkosic,		
Shale, blue. . . . .	60	1,390	Sandstone. . . . .	4	76	subangular to well-		
Clay, gray, shale,			Shale, blue. . . . .	26	102	rounded; contains		
and gray sand. . . . .	100	1,490	Shale, sandy, brown. .	3	105	some silt and clay		
Shale, gray and coal. .	10	1,500	Sandstone, gray. . . .	4	109	beds. . . . .	6.5	30
Shale and sandy shale. .	20	1,520	Shale, gray. . . . .	16	125	Dawson Formation (upper		
Shale, coal, and sand. .	30	1,550	Shale, sandy, gray. . .	3	128	part):		
Sand and shale. . . . .	14	1,564	Shale, gray. . . . .	13	141	Shale, very silty,		
Shale and coal. . . . .	6	1,570	Sandstone, gray. . . .	2	143	micaceous, light-		
Shale, some coal. . . .	30	1,600	Shale, gray. . . . .	7	150	olive-gray and		
Sandstone. . . . .	70	1,670	Shale, sandy, brown. .	2	152	dusky-yellow;		
Shale at 1,670 feet			Shale, gray and brown	81	233	contains mont-		
<b>CS-68-8ahad.</b> Alt. 5,289 ft.			Shale, sandy, brown. .	3	236	morillonite. . . . .	5	35
Piney Creek Alluvium:			Sandstone, fine-			<b>CS-68-9cbcg.</b> Alt. 5,312.2 ft.		
Surface soil. . . . .	3	3	grained, white. . . . .	5	241	Piney Creek Alluvium:		
Broadway Alluvium:			Shale, gray and			Silt, pale-yellowish-		
Sand and gravel. . . . .	13	16	brown. . . . .	62	303	brown, and medium		
Louviers Alluvium:			Sandstone, fine-			to coarse, arkosic		
Clay and streaks of			grained, white. . . . .	16	319	sand. . . . .	12.5	12.5
sand, flood wash. . . .	7	23	Shale, blue. . . . .	19	338	Louviers Alluvium:		
Sand and gravel. . . . .	7	30	Coal. . . . .	1	339	Silt, sandy and		
Gravel, coarse, and			Dawson Formation (lower			gravelly, very		
rocks. . . . .	12	42	part):			calcareous, pale-		
Dawson Formation:			Middle conglomerate:			yellowish-brown;		
Shale, blue, at 42			Sandstone, fine-			contains mont-		
feet			grained, white. . . . .	3	342	morillonite. . . . .	5	13

Table 1.--Loss of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>CS-68-9caga.</b> —Continued		<b>CS-68-12abga.</b> —Continued		<b>CS-68-13dard.</b> —Continued	
Gravel, fine to medium, arkosic, subrounded to rounded . . . . .	5	Topsoil . . . . .	6	Sandstone, gray. . . . .	49
Clay, sandy, grayish- tan; contains very fine gravel. . . . .	1.5	Silt, sandy . . . . .	11	Shale, gray. . . . .	17
Gravel, very fine to medium, arkosic, subangular to rounded, about 10 percent coarse sand, and pale-yellowish- brown, very cal- careous, mont- morillonitic silt; contains cobbles at 20 feet. . . . .	1.5	Younger loess: Clay, brown . . . . .	10	Sandstone, gray. . . . .	30
Dawson Formation (upper part): Shale, silty, non- calcareous, pale- yellowish-brown; contains mont- morillonite. . . . .	14	Dawson Formation: Sandstone . . . . .	1	Shale, blue. . . . .	3
				Sandstone, gray. . . . .	2
				Shale, gray. . . . .	82
				Sand . . . . .	7
				Shale, gray. . . . .	26
				Shale, brown . . . . .	4
				Shale, gray. . . . .	25
				Sandstone, gray. . . . .	14
				Shale, gray. . . . .	178
				Sand [Upper conglom- erate, 588 to 658 feet.] . . . . .	2
				Lime, sandy. . . . .	2
				Sand . . . . .	6
				Shale, gray. . . . .	26
				Sand, fine . . . . .	12
				Shale, gray. . . . .	15
				Sand . . . . .	7
				Shale, gray. . . . .	70
				Dawson Formation (lower part): Sand [Middle conglom- erate, 714 to 904 feet.] . . . . .	18
				Shale, gray. . . . .	14
				Lime, sandy. . . . .	1
				Sand . . . . .	5
				Shale, gray. . . . .	8
				Sand . . . . .	6
				Shale, gray. . . . .	10
				Sand . . . . .	6
				Shale, gray. . . . .	6
				Sand . . . . .	17
				Shale, gray. . . . .	16
				Sand . . . . .	19
				Shale, gray. . . . .	13
				Sand . . . . .	219
				Lower conglomerate: Sand, fine, gray . . . . .	55
					1,147
				<b>CS-68-16baba.</b> Alt. 5,345 ft.	
				Broadway Alluvium: Sand, dirty. . . . .	9
				Louviers Alluvium: Gravel . . . . .	24
				Gravel and sand. . . . .	11
				Dawson Formation (upper part): Sandstone. . . . .	1
					45
				<b>CS-68-17caga.</b> Alt. 5,316 ft.	
				Post-Piney Creek alluvium: Silt . . . . .	3
				Louviers Alluvium: Gravel and rocks . . . . .	9
				Clay . . . . .	1
				Gravel . . . . .	21
				Rocks. . . . .	1
				Gravel and rocks . . . . .	5
				Dawson Formation: Shale at 42 feet	
				<b>CS-68-17cdad2.</b> Alt. 5,317 ft.	
				Post-Piney Creek alluvium: Silt . . . . .	4
				Louviers Alluvium: Gravel . . . . .	22
				Silt . . . . .	2
				Gravel and rocks . . . . .	5
				Dawson Formation: Shale at 33 feet	
				<b>CS-68-17dbba.</b> Alt. 5,315 ft.	
				Piney Creek Alluvium: Silt . . . . .	3
				Louviers Alluvium: Gravel and rocks . . . . .	10
				Silt . . . . .	5
				Gravel . . . . .	7
				Silt . . . . .	2
				Gravel . . . . .	3
				Silt, hard . . . . .	5
				Gravel and rocks . . . . .	8
				Dawson Formation: Shale at 43 feet	
				<b>CS-68-17dcda.</b> Alt. 5,332 ft.	
				Surface. . . . .	6
				Dawson Formation (upper part): Shale, brown . . . . .	2
				Sandstone, gray. . . . .	16
				Clay, blue . . . . .	47
				Shale. . . . .	2
				Clay, blue . . . . .	23
				Rock (water-bearing) . . . . .	2
				Clay, blue . . . . .	35
				Shale. . . . .	12
				Clay and shale . . . . .	16
					193

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C5-68-17dcdg. --Continued</b>		<b>C5-68-19cdca. --Continued</b>		<b>C5-68-21abed. --Continued</b>	
Sand [Upper conglomerate, 193 to 240 feet.] (water-bearing) . . . . .	3	Sand [Middle conglomerate, 77 to 236 feet.] . . . . .	5	Sand; contains layers of gray shale . . . . .	19
Clay, tough . . . . .	4	Shale, sandy, gray . . . . .	11	Sand . . . . .	17
Clay and sand . . . . .	15	Shale, gray . . . . .	23	Shale, gray . . . . .	29
Sand (water-bearing) . . . . .	5	Shale, sandy, gray . . . . .	5	Sand; contains layers of gray shale . . . . .	12
Clay, blue . . . . .	10	Sand, coal, and gray shale . . . . .	14	Shale, gray . . . . .	8
Sandstone . . . . .	40	Shale, sandy, gray . . . . .	18	Shale, sandy, gray . . . . .	4
Clay and shale . . . . .	30	Shale, gray . . . . .	75	<b>Laramie Formation:</b>	
Sandstone . . . . .	6	Sand, fine, and gray shale . . . . .	8	Shale, gray . . . . .	90
Clay, blue . . . . .	16	Shale, sandy, gray . . . . .	8	Sand . . . . .	6
Sandstone . . . . .	5	Shale, gray . . . . .	7	Shale, gray . . . . .	152
Clay, blue . . . . .	2	Shale, sandy, brown and gray . . . . .	14	Lime . . . . .	2
Sandstone, hard . . . . .	2	<b>Lower conglomerate:</b>		Shale, gray, and mudstone . . . . .	117
Sandstone . . . . .	7	Sand, fine, and gray shale . . . . .	27	Coal; contains layers of gray shale . . . . .	17
Clay, tough . . . . .	9	Shale, gray . . . . .	14	Shale, gray . . . . .	26
<b>Dawson Formation (lower part):</b>		Sand, fine, and gray shale . . . . .	36	Coal; contains layers of gray shale . . . . .	56
Sand [Middle conglomerate, 367 to 472 feet.] (water-bearing) . . . . .	5	Shale . . . . .	32	Shale, gray . . . . .	93
Clay, blue . . . . .	54	Shale, gray . . . . .	32	Sand, fine [B sandstone, 1,170 to 1,464 feet.] . . . . .	94
Sand (water-bearing) . . . . .	4	Shale, brown and gray . . . . .	14	Coal and gray shale . . . . .	31
Clay, blue . . . . .	2	Sand, fine, and gray shale . . . . .	22	Sand, fine [A sandstone, 1,495 to 1,612 feet.] . . . . .	117
Sandstone . . . . .	4	Sand, fine to medium, and gray shale . . . . .	15	Coal and gray shale . . . . .	21
Clay . . . . .	4	Sand, fine, and gray shale . . . . .	5	Shale, gray . . . . .	47
Sand (water-bearing) . . . . .	2	Lime . . . . .	1	<b>Fox Hills Sandstone:</b>	
Sandstone . . . . .	13	Sand, fine, and gray shale . . . . .	14	Milliken Sandstone Member:	
Sand (water-bearing) . . . . .	5	Shale, gray . . . . .	5	Sand; contains layers of shale . . . . .	35
Clay . . . . .	46	Sand, fine . . . . .	3	<b>Transition zone:</b>	
<b>Lower conglomerate:</b>		<b>Laramie (?) Formation:</b>		Shale, gray . . . . .	82
Sand (water-bearing) . . . . .	20	Shale, gray . . . . .	38	Sand, fine, and gray shale . . . . .	11
Clay, blue . . . . .	34	<b>C5-68-20cdhd. Alt. 5,335.3 ft.</b>		Shale, gray . . . . .	18
Sand (water-bearing) . . . . .	5	<b>Post-Piney Creek alluvium:</b>		<b>C5-68-24ddab. Alt. 5,630 ft.</b>	
Clay . . . . .	40	Soil . . . . .	3	<b>Younger loess and Dawson Formation, undifferentiated:</b>	
Sandstone, hard . . . . .	2	<b>Louviers Alluvium:</b>		Clay, andesitic, brown, tan . . . . .	85
Sand (water-bearing) . . . . .	2	Clay, light-brown . . . . .	3	<b>Dawson Formation (upper part):</b>	
Sandstone, hard . . . . .	29	Sand and gravel . . . . .	5	Sand, coarse, and gray and tan clay . . . . .	10
<b>Laramie Formation:</b>		Clay, gray . . . . .	1	Clay, gray and tan; contains some coarse sand . . . . .	10
Clay and shale . . . . .	82	Sand and gravel . . . . .	9	Clay, gray with brownish cast . . . . .	40
<b>C5-68-18gacd. Alt. 5,486 ft.</b>		Sand . . . . .	4	Clay, greenish-gray and tan . . . . .	90
<b>Younger loess:</b>		Sand, gravel, and clay lenses . . . . .	9	Clay, gray-green and tan; contains some gravel . . . . .	10
Clay, brown . . . . .	10	Gravel and boulders . . . . .	4	Sand, fairly hard, gray, and some gray clay . . . . .	40
<b>Dawson Formation (upper part):</b>		<b>Dawson (?) Formation:</b>		Clay, brown . . . . .	30
Shale, blue . . . . .	96	Shale (?) at 47 feet		Gravel . . . . .	10
Sandstone, gray . . . . .	27	<b>C5-68-21abed. Alt. 5,451 ft.</b>		Clay, gray . . . . .	110
Shale . . . . .	17	<b>Eolian sand:</b>		Clay, green and gray, and some gravel . . . . .	10
Sand, silty . . . . .	5	Soil . . . . .	2	Clay, brown . . . . .	10
Shale, silty . . . . .	25	Clay, yellow . . . . .	20	Sand, white, and gravel . . . . .	10
Sand, fine, and sandstone . . . . .	6	<b>Dawson Formation (upper part):</b>		Clay, brown . . . . .	10
Shale; contains fine sand and thin sandy streaks . . . . .	58	Sandstone, brown . . . . .	3	Gravel . . . . .	10
Sand, fine, shaly . . . . .	20	Clay, brown and yellow . . . . .	15	Clay, gray . . . . .	110
Shale, silty . . . . .	30	Shale, blue, gray, and brown . . . . .	92	Clay, green and gray, and some gravel . . . . .	10
Sand, fine, and sandstone . . . . .	4	Sandstone, gray . . . . .	19	Clay, brown . . . . .	10
Shale, silty . . . . .	19	Shale, gray and brown . . . . .	23	Sand, white, and gravel . . . . .	10
Sand, fine, white, interbedded with shale . . . . .	27	Shale, gray, and sandstone . . . . .	14	Clay, brown . . . . .	10
Shale, silty, gray . . . . .	98	Shale, gray . . . . .	29	Sand and clay . . . . .	10
<b>Dawson Formation (lower part):</b>		Shale, gray, and sandstone . . . . .	6	Clay, gray . . . . .	50
Sand, fine; contains thin streaks of shale [Middle conglomerate, 452 to 561 feet.] . . . . .	109	Shale, gray . . . . .	56	Sand and clay . . . . .	20
Shale, sandy; contains fine sand . . . . .	63	Shale, gray, and sandstone . . . . .	6	Sand, coarse . . . . .	10
<b>Lower conglomerate:</b>		Shale, gray . . . . .	299	Gravel . . . . .	10
Sand, medium . . . . .	10	Shale, gray . . . . .	19	Clay, gray, and some gravel . . . . .	110
Shale, clay . . . . .	4	Shale, gray . . . . .	69	<b>Dawson Formation (lower part):</b>	
Sand, medium, clean, and sandstone . . . . .	8	Coal . . . . .	3	Sand [Middle conglomerate, 740 to 997 feet.] . . . . .	10
Shale, sandy, gray . . . . .	38	Shale, gray . . . . .	58	Sand, coarse . . . . .	6
Sand, fine . . . . .	8	Shale, gray, and fine sand . . . . .	16	Clay, gray, and some sand and gravel . . . . .	34
Shale, sandy, gray . . . . .	4	Shale, gray . . . . .	4	Gravel, fine . . . . .	20
Sand, fine, shaly . . . . .	14	Lime . . . . .	1	Gravel, coarse . . . . .	15
Shale, gray . . . . .	3	Sand . . . . .	8	Gravel and clay . . . . .	10
<b>C5-68-19cdca. Alt. 5,418 ft.</b>		Shale, gray . . . . .	23	Sand, coarse, and clay . . . . .	10
<b>Slocum Alluvium:</b>		Lime, sandy . . . . .	1	Gravel . . . . .	60
Topsoil . . . . .	2	<b>Dawson Formation (lower part):</b>		Sand, medium, and some gray clay . . . . .	30
Clay, sandy, brown . . . . .	13	Shale, gray [Middle conglomerate, 546 to 610 feet.] . . . . .	63	Gravel . . . . .	12
Sand . . . . .	6	Shale, sandy, gray . . . . .	31	Sand, coarse, and some gray clay . . . . .	30
Clay, red . . . . .	3	Sand, fine . . . . .	12	Clay, gray . . . . .	10
Clay, sandy, yellow . . . . .	4	Shale, gray . . . . .	13	Clay, gray, and some gravel . . . . .	10
Gravel . . . . .	4	Sand; contains layers of gray shale . . . . .	15	<b>C5-68-24ddab. Alt. 5,630 ft.</b>	
<b>Dawson Formation (upper part):</b>		Shale, gray . . . . .	14	<b>Younger loess and Dawson Formation, undifferentiated:</b>	
Clay, sandy, yellow . . . . .	13	Sand . . . . .	15	Clay, andesitic, brown, tan . . . . .	85
Shale, gray and blue . . . . .	29	Shale, gray . . . . .	18	<b>Dawson Formation (upper part):</b>	
Shale, sandy, gray . . . . .	3	Sand; contains layers of gray shale . . . . .	16	Sand, coarse, and gray . . . . .	10
<b>Dawson Formation (lower part):</b>		Shale, gray . . . . .	14	Gravel, fine . . . . .	20
				Gravel, coarse . . . . .	15
				Gravel and clay . . . . .	10
				Sand, coarse, and clay . . . . .	10
				Gravel . . . . .	60
				Sand, medium, and some gray clay . . . . .	30
				Gravel . . . . .	12
				Sand, coarse, and some gray clay . . . . .	30
				Clay, gray . . . . .	10
				Clay, gray, and some gravel . . . . .	10

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>CS-68-24ddab.--Continued</b>		<b>CS-68-27dggd.--Continued</b>		<b>CS-69-2bacc.--Continued</b>	
Clay, sticky, gray . . .	52	1,069	Shale, sandy, fine . . .	2	1,332
Clay, sticky, gray; contains some sand . . .	31	1,100	Shale, gray . . .	151	1,483
Clay, sticky, ashy, gray . . .	40	1,140	Coal . . .	7	1,490
Clay, gray, and fine sand . . .	10	1,150	Shale, gray . . .	41	1,531
Lower conglomerate: sand, coarse . . .	10	1,160	Coal . . .	12	1,543
Clay, gray; contains some fine sand . . .	32	1,192	Shale, gray . . .	23	1,566
Clay, gray . . .	28	1,220	Sand [B sandstone, 1,566 to 1,647 feet.] . . .	14	1,580
Clay, gray; contains fine sand . . .	10	1,230	Shale, gray . . .	2	1,582
Gravel . . .	23	1,253	Sand . . .	3	1,585
Clay, gray, sand, and gravel . . .	20	1,273	Shale, gray . . .	1	1,586
Clay, gray . . .	21	1,294	Sand . . .	23	1,609
Sand, coarse . . .	39	1,333	Shale, gray . . .	6	1,615
Shale, gray, and coarse sand . . .	22	1,355	Sand . . .	31	1,646
Clay, gray, and coarse clean sand . . .	18	1,373	Shale, hard, gray . . .	2	1,648
Shale, gray . . .	47	1,420	Sand [A sandstone, 1,650 to 1,703 feet.] . . .	76	1,724
Sand, fine . . .	18	1,438	Fox Hills Sandstone: Sand [Milliken Sandstone Member, 1,709 to 1,776 feet.] . . .	8	1,732
Shale, gray . . .	12	1,450	Sand; contains layers of gray shale . . .	10	1,742
<b>CS-68-27dggd. Alt. 5,610 ft.</b>			Sand . . .	34	1,776
Youngest lowest soil . . .	2	2	Transition zone: Shale, gray; contains layers of sand . . .	7	1,783
Clay, sandy, yellow . . .	11	13	Shale, gray . . .	6	1,789
<b>Dawson Formation (upper part):</b>			Shale, gray; contains layers of sand . . .	2	1,791
Clay, yellow and brown . . .	45	58	Shale, gray . . .	13	1,804
Sandstone, blue . . .	2	60	Shale, gray; contains layers of sand . . .	4	1,808
Sandstone, gray . . .	18	78	Shale, gray . . .	21	1,829
Shale, gray . . .	18	94	Shale, gray; contains layers of fine sand . . .	11	1,840
Sandstone, gray . . .	8	102	Sand, fine . . .	24	1,864
Shale, gray . . .	56	158	Shale, gray . . .	46	1,910
Shale, brown . . .	6	164	<b>CS-68-31aabb. Alt. 5,358 ft.</b>		
Sandstone, gray . . .	7	171	Post-Piney Creek alluvium: Soil . . .	4	4
Shale, blue . . .	7	178	Louviers Alluvium: Sand and gravel; contains streaks of clay . . .	52	56
Shale, brown . . .	4	182	<b>Dawson Formation: Shale at 56 feet</b>		
Sandstone, gray . . .	6	188	<b>CS-68-31abba. Alt. 5,378 ft.</b>		
Shale, gray . . .	9	197	No sample . . .	48	48
Shale, blue . . .	4	201	<b>Dawson Formation (upper part):</b>		
Sandstone, blue . . .	6	207	Clay, yellow . . .	14	62
Shale, sandy, gray . . .	5	212	Sandstone, blue . . .	3	65
Shale, gray . . .	5	217	Shale, blue and gray . . .	117	182
Shale, blue . . .	4	221	<b>Dawson Formation (lower part):</b>		
Shale, gray . . .	29	250	Sand, fine [Middle conglomerate, 182 to 206 feet.] . . .	24	206
Sandstone, gray . . .	5	255	Shale, gray . . .	107	313
Shale, gray . . .	41	296	Lower conglomerate: Sand, fine . . .	8	321
Sand . . .	9	305	Shale, gray . . .	6	327
Shale, gray . . .	36	341	Shale, gray, and fine sand . . .	8	335
Shale, blue . . .	5	346	Shale, gray . . .	24	359
Shale, gray . . .	56	402	Lime, sandy . . .	1	360
Sandstone, gray, and gray shale . . .	8	410	Shale, gray, and fine sand . . .	92	452
<b>Dawson Formation (lower part):</b>			<b>CS-68-31adad. Alt. 5,360.9 ft.</b>		
Shale, gray [Middle conglomerate, 482 to 628 feet.] . . .	84	494	Post-Piney Creek alluvium: Soil . . .	4	4
Sand . . .	13	507	Louviers Alluvium: Silt . . .	17	21
Shale, gray . . .	71	578	Gravel and rocks . . .	14	35
Sand . . .	8	586	Boulders . . .	2	37
Shale, gray . . .	12	598	<b>Dawson Formation (upper part):</b>		
Sand . . .	14	612	Shale . . .	2	39
Shale, gray . . .	3	615	<b>CS-68-32acba. Alt. 5,372.2 ft.</b>		
Sand . . .	13	628	Piney Creek Alluvium: Topsoil . . .	4	4
Shale, gray . . .	37	665	Broadway Alluvium: Sand and gravel . . .	7	11
Sand . . .	5	670	Louviers Alluvium: Clay, blue . . .	4	15
Shale, gray . . .	18	688	Sand and gravel . . .	8	23
<b>Lower conglomerate:</b>			<b>Dawson Formation: Shale at 23 feet</b>		
Sand . . .	13	701	<b>CS-69-2bacc. Alt. 5,500 ft.</b>		
Shale, gray . . .	16	717	Overburden . . .	54	54
Sand . . .	12	729	<b>Dawson Formation (upper part):</b>		
Shale, gray . . .	12	741	Clay, blue . . .	81	135
Sand . . .	15	756	Coal . . .	2	137
Shale, gray . . .	4	760	Clay and shale . . .	24	161
Sand and gray shale . . .	31	791	<b>CS-69-2bbab. Alt. 5,503.7 ft.</b>		
Shale, gray . . .	32	823	Piney Creek Alluvium: Silt, sandy and clayey, finely micaceous, pale-yellowish-brown . . .	7.5	7.5
Sand . . .	8	831	<b>Louviers Alluvium:</b>		
Shale, gray . . .	3	834	Gravel, medium to coarse, angular to well-rounded, arkosic, cobbles, and boulders; contains lenses of sand and clay . . .	6.5	14
Sand . . .	8	842	Silt, sandy, slightly calcareous, grayish-orange; contains some medium to coarse gravel . . .	4	18
Sand and gray shale . . .	18	860	Silt, slightly sandy, noncalcareous, pale-olive and dusky-yellow . . .	2	20
Shale, gray . . .	26	886	Silt, sandy and gravelly, very calcareous, dark-greenish-gray; contains montmorillonite . . .	2.5	22.5
Sand, fine . . .	18	904	<b>Transition zone:</b>		
Shale, gray . . .	4	908	Shale, silty, sandy, dark-yellowish-brown, at 22.5 feet		
Sand, fine . . .	6	914	<b>CS-69-2bbac. Alt. 5,504.8 ft.</b>		
Shale, gray . . .	76	990	Piney Creek Alluvium: Silt, sandy and clayey, finely micaceous, pale-yellowish-brown . . .	7.5	7.5
Sand, fine . . .	26	1,016	<b>Louviers Alluvium:</b>		
<b>Laramie Formation [top at 1,046 feet.]:</b>			Gravel, medium to coarse, angular to well-rounded, arkosic, cobbles, and boulders; contains lenses of sand and clay . . .	6.5	14
Shale, gray . . .	207	1,223	Silt, sandy, slightly calcareous, grayish-orange; contains some medium to coarse gravel . . .	4	18
Shale, gray, and fine sand . . .	10	1,233	Silt, slightly sandy, noncalcareous, pale-olive and dusky-yellow . . .	2	20
Shale, gray . . .	6	1,239	Silt, sandy and gravelly, very calcareous, dark-greenish-gray; contains montmorillonite . . .	2.5	22.5
Shale, hard, gray . . .	2	1,241	<b>Transition zone:</b>		
Shale, gray . . .	67	1,328	Shale, silty, sandy, dark-yellowish-brown, at 22.5 feet		
Limestone . . .	2	1,330	<b>CS-69-2bbac. Alt. 5,504.8 ft.</b>		

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CS-69-5bbag2. Alt. 5,506.5 ft. Piney Creek Alluvium: Clay, plastic, sandy, tan; contains gravel . . . . . 2.5		CS-69-5bbdc. --Continued Shale, silty, grav- elly, light-olive- gray; contains some montmoril- lonite . . . . . 5		CS-69-8aaaa. --Continued Laramie Formation: Shale, silty, sandy, very micaceous, dark-yellowish- brown . . . . . 2	
Louviers Alluvium: Sand, poorly sorted, micaceous, silty, calcareous, and well rounded very coarse gravel . . . . . 1.5	2.5	CS-69-5bddd. Alt. 5,502.1 ft. Piney Creek Alluvium: Silt, sandy, micaceous, dark-yellowish- brown . . . . . 1	42.5	CS-69-8aaab. Alt. 5,630.3 ft. Piney Creek Alluvium: Silt, dark-yellowish- brown; contains arkosic very fine sand and a little gravel . . . . . 4	5
Silt, gravelly, cal- careous, micaceous, dark-yellowish- brown; contains cobbles . . . . . 9.5	4	Silt, sandy, very micaceous, moderate- brown to dark- yellowish-brown; becomes slightly calcareous between 4.0 to 7.0 feet . . . 6	1	Slocum Alluvium: Silt, sandy, very micaceous, very calcareous, grayish- orange . . . . . 4.5	13.5
Cobbles and boulders, mixed with fine to coarse gravel; contains layer of sandy, pale- yellowish-brown, noncalcareous silt between 14.0 and 15.0 feet . . . . . 3	13.5	Louviers Alluvium: Sand, very fine to fine, micaceous, very silty, dark- yellowish-orange and dark-yellowish- brown; contains cobbles from 10 to 18 feet . . . . . 11	7	Sand, very fine to fine, silty, grayish- orange-pink, and scattered angular gravel . . . . . 2.5	8.5
Clay, silty; contains fine to medium gravel . . . . . 1	16.5	Transition zone: Shale, clay, slightly calcareous, mica- ceous; contains limonite-stained silt . . . . . 4.5	18	Sand, fine to very coarse, arkosic, poorly sorted, sub- rounded to rounded, and about 40 percent medium to coarse gravel . . . . . 1.5	11
Sand, coarse to very coarse, arkosic, subangular to sub- rounded, fairly well-sorted . . . . . 5	17.5	CS-69-5dcdg. Alt. 5,670.3 ft. Piney Creek Alluvium: Silt, sandy, micaceous, calcareous, pale- yellowish-brown . . . 3	22.5	Gravel, very fine to medium, subrounded to rounded, arkosic, and about 20 per- cent coarse sand . . 2.5	12.5
Transition zone: Shale, silty, gravelly, calcareous, micaceous, light-olive-gray; contains mont- morillonite . . . . . 7.5	22.5	Shale, silty, mica- ceous, compact, placy, dusky- yellow . . . . . 9.5	15	Gravel, very fine to coarse, angular to subrounded, arkosic, and about 30 per- cent very coarse sand; contains grayish-orange- pink silt . . . . . 2.5	17.5
CS-69-5bbdb. Alt. 5,508.1 ft. Piney Creek Alluvium: Silt, sandy and gravelly, very calcareous, micaceous, grayish-orange . . . 1	30	Transition zone: Shale, silty, very calcareous, dusky- yellow; contains montmorillonite; at 12.5 feet	12.5	Fox Hills Sandstone: Milliken Sandstone Member: Sandstone and very fine silty sand in alternately hard and soft layers . . . 24.5	42
Louviers Alluvium: Cobbles . . . . . 2	5	CS-69-6aaad2. Alt. 5,560 ft. Piney Creek Alluvium: Silt, sandy, micaceous, dark-yellowish- brown and dusky- yellow . . . . . 7.5	52.5	Sand, very coarse, very well-sorted, subangular to sub- rounded, moderately cemented . . . . . 10.5	16
Silt, sandy and gravelly, micaceous, calcareous, dark-yellowish- brown . . . . . 11	17.5	Louviers Alluvium: Gravel, very fine to medium, mostly medium, subrounded to well-rounded, arkosic; contains small cobbles sand, and some dusky-yellow silt . . 5	7.5	Shale, silty, micaceous, slightly sandy, non- calcareous, medium- light-gray; contains montmorillonite at 52.5 feet	52.5
Cobbles and boulders . . 1.5	25	Sand, medium to very coarse, arkosic, subangular to sub- rounded, very fine gravel, and about 20 percent pale- olive, very micaceous silt . . . 5	12.5	CS-69-8aaba. Alt. 5,636.0 ft. Piney Creek Alluvium: Silt, clayey and sandy, slightly calcareous, dark- yellowish-brown . . . 4	4
Silt, sandy, dark- yellowish-brown and pale-yellowish- brown; contains cobbles and medium to coarse sand . . . 7.5	35	Silt, sandy, very micaceous, pale- olive; contains montmorillonite . . 10	17.5	Slocum Alluvium: Sand, fine to medium, arkosic, angular to subrounded, silty, micaceous, grayish- orange-pink and about 10 percent very fine gravel . . . 5.5	9.5
Gravel, fine, arkosic. 10	39	Gravel, very fine, compacted and weakly cemented, subangular to well- rounded, arkosic, and about 40 per- cent pale-green slightly calcare- ous very micaceous silt . . . . . 5	27.5	Gravel, fine to medium, angular to sub- rounded, and medium to very coarse red sand . . . . . 1.5	11
Sand, fine to coarse, bluish; contains clay . . . . . 4	40	Transition zone: Shale, silty, greenish-gray and pale-yellowish- brown to 58.5 feet, light-olive- gray from 58.5 to 73.0 feet; contains montmorillonite . . 40.5	12.5	Silt, very sandy and clayey, grayish- orange-pink . . . . . 2	13
Transition zone: Shale, calcareous, light-olive-gray; contains mont- morillonite . . . . . 1		CS-69-8aaaa. Alt. 5,617.5 ft. Piney Creek Alluvium: Silt, clayey, very sandy, very calcareous, dusky- yellow; contains montmorillonite . . . 1	73	Gravel, very fine to medium, hard, sub- angular to well- rounded, arkosic; contains about 10 percent very coarse sand and numerous gray-white and very-pale-orange fragments of limestone . . . . . 10	11
CS-69-5bbdc. Alt. 5,510.5 ft. Piney Creek Alluvium: Loam, very sandy, loose, red-brown . . 2.5	2.5			Transition zone: Shale, silty, finely micaceous, sandy; contains much limonite . . . . . 4.5	23
Silt, sandy, micaceous, moderate-yellowish- brown . . . . . 5	7.5			CS-69-8abaa. Alt. 5,646.9 ft. Louviers Alluvium: Silt, very calcareous, grayish-yellow . . . 7.5	27.5
Louviers Alluvium: Gravel, medium to coarse, rounded . . . 2.5	10				
Silt, very sandy, micaceous, moderate- yellowish-brown . . . 4	14				
Gravel, coarse to very coarse, well-rounded, arkosic . . . . . 1	15				
Sand, coarse to very coarse, arkosic, subangular to sub- rounded, and some grayish-orange silt; contains some fine gravel . . . . . 4	19				
Cobbles . . . . . 2	21				
Gravel, fine, and coarse to very coarse sand; contains some grayish-orange silt. 11.5	32.5				
Transition zone: Silt, very calcareous, micaceous, pale- yellowish-brown, and fine to medium sand . . . . . 5	37.5				

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>CS-69-9abab.</b> ---Continued		<b>CS-69-9ddcc.</b> Alt. 5,680 ft.		<b>CS-69-18bbcc.</b> ---Continued	
Gravel, medium, arkosic, subrounded to well-rounded. . . . .	4.5	Slocum Alluvium:	6	Sand . . . . .	38
	12	Soil. . . . .	19	Sand, fine . . . . .	119
Slocum Alluvium:		Clay, yellow. . . . .	25	Lime . . . . .	5
Sand, medium to very coarse, subangular to rounded, and very fine to fine gravel; has overall reddish hue. . . . .	1.5	Dawson Formation (lower part):		Sand . . . . .	27
Gravel, cemented, very hard, at 13.5 feet	13.5	Clay, sandy, brown [Middle conglomerate, 25 to 53 feet.]. . . . .	14	Lime, sandy. . . . .	3
		Limestone . . . . .	1	Sand . . . . .	211
		Conglomerate. . . . .	13		900
		Shale, gray and blue. . . . .	70		
<b>CS-69-9abab.</b> Alt. 5,658.0 ft.		Lower conglomerate:			
Piney Creek Alluvium:		Sandstone . . . . .	3		
Sand, very fine to medium, arkosic, angular to subangular, silty, very calcareous, pale-yellowish-brown. . . . .	2.5	Shale, gray . . . . .	4		
	2.5	Sandstone . . . . .	12		
Silt, sandy, very calcareous, dusky-yellow . . . . .	15.5	Shale, blue . . . . .	17		
	18	Conglomerate. . . . .	20		
Slocum Alluvium:		Sand, contains layers of shale. . . . .	67		
Gravel, very fine to medium, subangular to subrounded, cemented, moderate-yellowish-brown, very calcareous, arkosic; contains iron-oxide concretions; some particles are weathered and break rather easily. . . . .	10		246		
	28	<b>CS-69-11abbb.</b> Alt. 5,564 ft.			
		No sample . . . . .	185		
		Dawson Formation (upper part):			
		Shale, gray . . . . .	40		
		Dawson Formation (lower part):			
		Sand, fine, dirty [Middle conglomerate, 225 to 350 feet.]. . . . .	25		
		Shale, gray . . . . .	5		
		Sandstone, dirty. . . . .	10		
		Shale, gray . . . . .	40		
		Sand, fine. . . . .	20		
		Shale, gray . . . . .	20		
		Sand. . . . .	5		
		Shale, blue . . . . .	5		
		Sandstone . . . . .	45		
		Shale, blue . . . . .	30		
		Lower conglomerate:			
		Sand, coarse. . . . .	55		
			485		
		<b>CS-69-11acbc.</b> Alt. 5,532 ft.			
		Piney Creek Alluvium:			
		Clay, sandy, brown. . . . .	12		
		Slocum Alluvium:			
		Gravel, fine, and sand. . . . .	31		
			43		
		<b>CS-69-16aaaa.</b> Alt. 5,665 ft.			
		Slocum Alluvium:			
		Clay. . . . .	33		
		Dawson Formation (lower part):			
		Sandstone and clay. . . . .	129		
		Lower conglomerate:			
		Gravel. . . . .	10		
		Clay and shale. . . . .	28		
		Sandrock and clay. . . . .	57		
			257		
		<b>CS-69-18baaa.</b> Alt. 5,798 ft.			
		Benton Shale:			
		Soil. . . . .	2		
		Clay, sandy, red. . . . .	4		
		Sand, red . . . . .	2		
		Bentonite . . . . .	8		
		Shale, gray . . . . .	55		
		Bentonite . . . . .	1		
		Shale, gray . . . . .	60		
		Bentonite . . . . .	1		
		Shale, gray . . . . .	36		
		Bentonite . . . . .	1		
		Shale, gray . . . . .	102		
		Bentonite . . . . .	1		
		Shale, gray . . . . .	197		
		Dakota Group:			
		South Platte Formation:			
		Sand. . . . .	27		
		Shale, gray . . . . .	18		
		Sand. . . . .	83		
			598		
		<b>CS-69-18bbcc.</b> Alt. 5,865.0 ft.			
		Piney Creek Alluvium:			
		Soil. . . . .	2		
		Clay, sandy, red. . . . .	7		
		Lykins Formation:			
		Sand, red . . . . .	9		
		Shale, red. . . . .	117		
		Shale, red, and bentonite. . . . .	157		
		Lime. . . . .	21		
		Shale, red. . . . .	12		
		Lime. . . . .	5		
		Shale, red. . . . .	50		
		Lime. . . . .	2		
		Shale, red, and lime. . . . .	19		
		Lyons Sandstones:			
		Sandstone, hard . . . . .	17		
		Sand, fine, yellow. . . . .	14		
		Sand, fine, pink. . . . .	28		
		Lime, pink. . . . .	12		
			492		
		<b>CS-69-21abaa.</b> Alt. 5,715 ft.			
		Laramie Formation:			
		Topsoil and clay . . . . .	9		
		Shale. . . . .	256		
		Sand, very fine, silty . . . . .	50		
			315		
		<b>CS-69-22aabb.</b> Alt. 5,580 ft.			
		Piney Creek Alluvium:			
		Topsoil and clay . . . . .	22		
		Dawson Formation (upper part):			
		Clay, blue; has brown streaks. . . . .	32		
		Shale, blue, and clay. . . . .	24		
		Sandrock, hard . . . . .	9		
		Clay and shale; blue-gray . . . . .	17		
		Shale, blue. . . . .	4		
		Clay and shale; blue-gray . . . . .	7		
		Shale, blue. . . . .	7		
		Clay and shale; blue. . . . .	42		
		Dawson Formation (lower part):			
		Sandstone, fine-grained [Middle conglomerate, 184 to 260 feet.]. . . . .	9		
		Clay, blue-gray. . . . .	41		
		Rock, hard, brown. . . . .	1		
		Shale and clay, blue-gray . . . . .	16		
		Shale, sandy, blue, and sandrock . . . . .	9		
		Clay, gray . . . . .	14		
		Rock, hard, blue . . . . .	1		
		Clay and shale; blue-gray . . . . .	41		
		Rock, hard, brown. . . . .	1		
		Clay and shale; blue-gray . . . . .	3		
		Limestone. . . . .	1		
		Shale and clay; sandy. . . . .	16		
		Rock, hard, brown. . . . .	1		
		Shale, sandy . . . . .	3		
		Lower conglomerate:			
		Sandstone, fine-grained. . . . .	18		
		Clay and shale; gray . . . . .	37		
			405		
		<b>CS-69-22abaa.</b> Alt. 5,592 ft.			
		Younger loess:			
		Clay, yellow . . . . .	14		
		Dawson Formation (upper part):			
		Clay, gray . . . . .	5		
		Clay, yellow and gray. . . . .	7		
		Clay, gray . . . . .	4		
		Clay, yellow and gray. . . . .	33		
		Clay, blue . . . . .	17		
		Sandstone. . . . .	6		
		Shale, blue. . . . .	6		
		Clay, blue . . . . .	6		
		Shale, dark-blue . . . . .	5		
		Clay, light-blue . . . . .	26		
		Shale, gray. . . . .	16		
		Shale, dark-blue . . . . .	1		
		Pyrite, iron . . . . .	1		
		Shale, blue. . . . .	6		
		Clay, blue-gray. . . . .	19		
		Dawson Formation (lower part):			
		Sandrock [Middle conglomerate, 174 to 271 feet.](faulted). . . . .	2		
		Sand, fine . . . . .	11		
		Shale, blue. . . . .	5		
		Limestone, soft . . . . .	4		
			196		



Table 1.—Logs of wells and test holes—Continued

	Thick- ness	Depth		Thick- ness	Depth		Thick- ness	Depth
<b>CS-69-22abaa. --Continued</b>			<b>CS-69-22baaa. --Continued</b>			<b>CS-69-24abab. --Continued</b>		
Clay, blue. . . . .	9	205	Shale, gray. . . . .	6	210	Sandstone, gray. . . . .	3	221
Shale, blue. . . . .	11	216	Shale, gray, and			Shale, sandy, gray. . . . .	5	226
Sandrock. . . . .	2	218	rocks. . . . .	3	213	Shale, gray. . . . .	22	246
Sand. . . . .	2	220	Shale, hard, gray. . . . .	8	221	Shale, sandy, gray. . . . .	5	253
Shale, rough, blue. . . . .	14	234	Shale, sandy, gray. . . . .	4	225	Shale, gray. . . . .	5	258
Clay, dark-gray. . . . .	5	239	Rock. . . . .	1	226	Shale, sandy, gray. . . . .	5	263
Coal. . . . .	1	240	Shale, sandy, and			Lower conglomerate:		
Shale, blue. . . . .	2	242	rock. . . . .	4	230	Sand, coarse, and		
Clay, dark-gray. . . . .	4	246	Dawson Formation (lower			gray shale. . . . .	9	272
Shale, blue. . . . .	4	250	part):			Shale, sandy, gray. . . . .	6	278
Sand, fine. . . . .	21	271	Sand, shale, and			Coal and gray sandy		
Shale, hard, gray. . . . .	13	284	rock [Middle conglom-			shale. . . . .	5	283
Clay, blue-gray. . . . .	14	298	erate, 230 to			Shale, sandy, brown. . . . .	3	286
Shale, blue. . . . .	9	307	289 feet.]. . . . .	12	242	Sand and gray shale. . . . .	9	295
Clay, blue-gray. . . . .	15	322	Sand. . . . .	1	243	Sand, fine, gray. . . . .	16	311
Clay, brownish-blue. . . . .	8	330	Sand, shale, and			Shale, sandy, brown. . . . .	6	317
Shale, sandy, dark-blue	8	338	rock. . . . .	7	250	Sand and gray sandy		
Sandrock, light-blue. . . . .	6	344	Sand and shale. . . . .	11	261	shale. . . . .	58	375
Limestone, soft, brown. . . . .	3	347	Sand, shale, and			Lime, sandy. . . . .	4	379
Lower conglomerate (faulted):			rock. . . . .	11	265	Shale, sandy, brown		
Sand (water-bearing). . . . .	19	366	Shale, gray. . . . .	2	267	and gray. . . . .	21	400
Shale, blue. . . . .	5	371	Sand, shale, and			Sand and gray shale. . . . .	10	410
Clay, blue-gray. . . . .	4	375	rock. . . . .	3	270	Shale, gray. . . . .	21	431
Shale, blue. . . . .	21	396	Shale, hard, gray. . . . .	10	280	Sand, fine, and gray		
Sand. . . . .	2	398	Shale, sandy, gray,			sandy shale. . . . .	19	450
Laramie Formation:			and rock. . . . .	4	284	Shale, gray. . . . .	23	473
Shale, blue, and clay. . . . .	62	460	Sand. . . . .	1	285			
<b>CS-69-22abba. Alt. 5,603 ft.</b>			Shale, sandy. . . . .	3	288	<b>CS-69-25aaac. Alt. 5,450 ft.</b>		
No sample. . . . .	187	187	Sand. . . . .	1	289	Slocum Alluvium:		
Dawson Formation and Laramie			Shale, sandy, hard. . . . .	21	310	Soil. . . . .	6	6
Formation (upper part),			Shale, blue. . . . .	5	315	Sand. . . . .	4	10
undifferentiated (faulted):			Sand, crusted. . . . .	4	319	Dawson (?) Formation (upper		
Shale, sandy. . . . .	19	206	Shale. . . . .	5	324	part):		
Rock. . . . .	4	210	Sand. . . . .	2	326	Clay. . . . .	5	15
Shale, blue. . . . .	16	226	Shale, sandy. . . . .	14	340	Dawson Formation (lower		
Sandstone. . . . .	2	228	Shale, sandy, hard. . . . .	3	343	part):		
Shale, blue. . . . .	12	240	Shale, blue. . . . .	1	344	Sand (Middle conglom-		
Sandstone. . . . .	5	245	Sand, crusted. . . . .	2	346	erate, 16 to 156		
Shale, green. . . . .	5	250	Shale, sandy, and			feet.]. . . . .	30	45
Limestone. . . . .	1	253	crusted sand. . . . .	4	350	Clay. . . . .	10	55
Shale, blue. . . . .	7	260	Shale, blue. . . . .	4	354	Shale, blue. . . . .	5	60
Coal. . . . .	2	262	Lower conglomerate:			Shale, green. . . . .	10	70
Shale, brown. . . . .	11	273	Sand. . . . .	6	360	Shale, blue. . . . .	10	80
Sand, "sugar". . . . .	2	275	Shale, blue. . . . .	5	365	Shale, gray. . . . .	10	90
Shale, green. . . . .	5	280	Sand. . . . .	5	370	Shale, blue. . . . .	20	110
Sandstone. . . . .	5	285	Shale, gray. . . . .	8	378	Shale, gray. . . . .	9	119
Shale. . . . .	19	304	Sand. . . . .	2	380	Rock. . . . .	1	120
Sandstone. . . . .	1	305	Shale, gray. . . . .	3	383	Shale, blue. . . . .	10	130
Shale. . . . .	15	340	Sand. . . . .	4	377	Coal. . . . .	3	133
Sandstone. . . . .	2	342	Shale, gray. . . . .	4	391	Rock. . . . .	2	135
Shale, blue. . . . .	6	348	Sand. . . . .	1	392	Shale, gray. . . . .	14	149
Sandstone. . . . .	2	350	Laramie Formation (upper			Sand, fine. . . . .	1	150
Shale, sandy. . . . .	18	368	part):			Shale, gray. . . . .	20	170
Coal. . . . .	2	370	Shale, gray and blue. . . . .	16	408	Shale, blue. . . . .	10	180
Sand, "sugar". . . . .	3	373	Rock. . . . .	2	410	Shale, sandy, gray. . . . .	10	190
Coal. . . . .	5	378	<b>CS-69-22ccac. Alt. 5,670 ft.</b>			Sandstone. . . . .	2	192
Shale, gray. . . . .	5	383	Slocum Alluvium:			Shale, gray. . . . .	3	195
Sand, "sugar". . . . .	3	396	Clay, yellow. . . . .	6	6	Shale, blue. . . . .	5	200
Shale, sandy. . . . .	14	400	Sand. . . . .	5	11	Shale, sandy, gray. . . . .	10	210
Rock. . . . .	2	402	Dawson Formation (lower			Shale, gray. . . . .	5	215
<b>CS-69-22baaa. Alt. 5,620 ft.</b>			part):			Lower conglomerate:		
Younger loess:			Clay, yellow. . . . .	13	24	Sand. . . . .	2	217
Soil. . . . .	5	5	Sand, fine. . . . .	6	30	Shale, gray. . . . .	10	227
Dawson Formation (upper			"Bentonite". . . . .	9	39	Sand. . . . .	1	230
part):			Shale, gray and blue. . . . .	20	59	Rock. . . . .	2	232
Clay. . . . .	25	10	Sand (water-bearing). . . . .	8	67	Shale, gray. . . . .	2	234
Shale, gray. . . . .	1	33	Clay, yellow. . . . .	2	69	Sand. . . . .	1	235
Sand. . . . .	2	35	Laramie Formation (upper			Shale, brown. . . . .	5	240
Shale, gray and brown. . . . .	20	53	part):			Shale, blue. . . . .	10	250
Clay, sandy. . . . .	8	63	Shale, blue. . . . .	19	108	Shale, gray. . . . .	15	265
Sand. . . . .	1	66				Sand, fine. . . . .	5	270
Shale. . . . .	7	73	<b>CS-69-24abab. Alt. 5,490 ft.</b>			Shale, gray. . . . .	10	290
Rock. . . . .	2	75	Slocum Alluvium:			Rock. . . . .	2	292
Shale, sandy, gray. . . . .	10	85	Topsoil. . . . .	3	3	Shale, gray. . . . .	1	295
Shale, gray. . . . .	3	88	Clay, gray. . . . .	16	19	Shale, blue. . . . .	5	300
Coal. . . . .	1	89	Clay, sandy, yellow. . . . .	3	22	Shale, blue. . . . .	80	380
Shale, gray. . . . .	3	92	Dawson Formation (upper			Sandstone. . . . .	12	392
Shale, gray, and coal. . . . .	5	97	part):			Shale, blue. . . . .	2	394
Shale, sandy, gray. . . . .	1	98	Clay, gray. . . . .	17	39	Coal. . . . .	6	400
Sandstone. . . . .	1	99	Shale, gray. . . . .	58	97	Shale, sandy, gray. . . . .	10	410
Coal. . . . .	1	100	Dawson Formation (lower			Shale, blue. . . . .	10	420
Shale, gray. . . . .	10	110	part):			Shale, gray. . . . .	10	430
Shale, gray, and coal. . . . .	5	115	Sand [Middle conglom-			Shale, brown. . . . .	4	434
Shale, gray. . . . .	4	119	erate, 97 to 204			Sand. . . . .	5	439
Rock. . . . .	1	120	feet.]. . . . .	10	107	Shale, blue. . . . .	1	440
Shale, sandy, gray. . . . .	5	125	Shale, gray. . . . .	22	129	Shale, sandy. . . . .	5	445
Shale, gray. . . . .	5	130	Shale, sandy, gray,			Shale, blue. . . . .	5	450
Shale, gray, and sand. . . . .	6	136	and thin beds of			Sand. . . . .	8	458
Shale, gray. . . . .	6	142	sand. . . . .	7	136	Shale, gray. . . . .	2	460
Rock. . . . .	3	146	Shale, blue and gray,			Sandstone. . . . .	5	465
Coal and rock. . . . .	3	151	and thin beds of			Shale, sandy, gray. . . . .	5	470
Shale, gray. . . . .	5	153	sand. . . . .	7	143	Sand, cemented. . . . .	1	471
Rock, sandy. . . . .	2	153	Sandstone, gray. . . . .	11	154	Shale, gray. . . . .	4	475
Shale, hard, gray. . . . .	5	158	Shale, gray. . . . .	3	157	Shale, sandy. . . . .	1	476
Shale, gray, and coal. . . . .	2	160	Sand, coarse, and gray			Shale, blue. . . . .	8	484
Shale, gray. . . . .	3	163	shale. . . . .	11	168	Sand, fine. . . . .	16	500
Shale, gray, and sand. . . . .	1	164	Shale, gray. . . . .	6	174	Laramie Formation:		
Shale, gray. . . . .	16	180	Shale, sandy, gray. . . . .	3	177	Shale, gray. . . . .	10	510
Shale, gray, hard. . . . .	20	200	Sand and gray shale. . . . .	11	186	Shale, blue. . . . .	10	520
Shale, gray. . . . .	3	203	Sandstone, gray, and			Shale, gray. . . . .	10	530
Shale, sandy, brown. . . . .	1	204	sand. . . . .	16	204	Coal. . . . .	2	532
			Shale, gray. . . . .	14	218	Shale, blue. . . . .	8	540
						Rock. . . . .	1	541

Table 1.--Logs of wells and test holes--Continued

Thick- ness Depth			Thick- ness Depth			Thick- ness Depth		
CS-69-23aagc. --Continued			CS-69-27baaa. --Continued			CS-70-16agcd. --Continued		
Shale, sandy	25	566	Shale, blue	5	245	Precambrian:		
Sand	2	568	Sand	5	250	Granite, gray, and		
Shale, gray	4	572	Rock	5	255	quartz	8	14
Coal	1	573	Shale, gray and blue	10	265	Granite, gray and		
Shale, brown	2	575	Shale, sandy, gray	5	270	rose	16	10
Coal	1	576	Sand	7	273	Granite, rose	56	86
Shale, blue	2	578	Shale, blue	6	279	Schist (yields about		
Sand	1	579	Sand and shale	14	293	6 gallons per hour)	3	99
Shale, gray	3	582	Coal	2	295	Granite, gray	15	124
Sand	3	585	Sand and shale	5	100	Granite, rose	3	127
Shale, blue	15	600	Coal	5	105	Granite, gray	49	176
Shale, gray	6	606	Sand	5	110	Granite, rose	8	184
Shale, blue	10	616	Shale, blue	10	120	Granite, gray	48	232
Sandstone	4	620	Sand	2	122	Granite, rose	6	238
Shale, blue	10	630	Coal	1	125	Granite, gray, and		
Sandstone, porous	5	635	Shale, gray	5	130	biotite	30	268
Shale, blue	2	637	Rock	5	135	Granite, gray (yields		
Sandstone	1	640	Sand and shale	5	140	water at 294 feet)	26	294
Shale, blue	8	648	Shale, gray and blue	10	150	Granite, gray, and		
Coal	2	650	Shale, sandy, grav.	15	165	biotite (water-		
Shale, gray	10	660	Shale, blue	10	175	bearing)	19	313
Shale, sandy	15	675	Sand	2	177			
Sandstone	5	680	Rock	5	182			
Shale, blue	20	700	Shale and rock	8	190			
Coal	3	703						
Shale, gray	162	865						
Limestone	2	867						
Shale, gray	21	888						
Sand, fine, and gray								
shale	10	898						
Shale, gray	26	924						
Coal and gray shale	38	962						
Limestone	4	966						
Coal and gray shale	112	1,078						
B and A sandstones,								
undifferentiated:								
Sand, fine, and gray								
shale	134	1,212						
Coal and gray shale	126	1,338						
Fox Hills Sandstones:								
Milliken Sandstone Member								
(repeated by faulting):								
Sand, fine, and gray								
shale	31	1,369						
Shale, gray	97	1,466						
Sand, fine, and gray								
shale	73	1,539						
Shale, gray	31	1,570						
CS-69-26bbbbb. Alt. 5,540 ft.								
Slocum Alluvium:								
Topsoil	6	6						
Sand	24	30						
Dawson Formation (upper								
part):								
Clay	10	40						
Shale, brown and blue	60	100						
Rock	2	102						
Shale, brown, gray,								
and blue	28	130						
Dawson Formation (lower part):								
Middle conglomerate:								
Sand	3	133						
Shale, brown and blue	7	140						
Sand	10	150						
Shale, blue	5	155						
Sand	5	160						
Rock at 160 feet								
CS-69-27baaa. Alt. 5,615 ft.								
Slocum Alluvium:								
Soil	6	6						
Clay	14	20						
Dawson Formation (upper and								
lower parts, undifferentiated):								
Clay, brown and yellow								
low	45	65						
Shale, blue	20	85						
Sand, cemented	19	104						
Shale, blue and gray	36	140						
Coal	2	142						
Shale, gray and blue	12	154						
Sand	8	162						
Rock	2	164						
Shale, hard, blue	6	170						
Shale, gray, and rock	20	190						
Shale, gray	5	195						
Dawson Formation (lower part)								
Laramie Formation (upper								
undifferentiated								
(faulted):								
Sand, hard	2	197						
Sand, coarse	1	200						
Rock	2	202						
Sand	6	208						
Shale, blue	8	216						
Limestone	1	217						
Shale, blue	1	218						
Sand	1	221						
Shale, blue	7	228						
Sand	2	230						
Shale, gray	5	233						
Shale and sand	5	240						

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C5-70-14bbad.--Continued</b>		<b>C6-65-9bbch.--Continued</b>		<b>C6-65-18adaa.--Continued</b>	
Precambrian (granite):		Shale, sandy, and		Sand, fine to coarse.	
Granite, gray . . . . . 25		layers of sand. . . . . 5		silty, subrounded,	
<b>C5-70-14cbdc2. Alt. 7,135 ft.</b>		Shale, gray . . . . . 1		arkosic, light-	
Precambrian:		Sand. . . . . 5		gray . . . . . 20	
Granite, decomposed,		Shale, gray . . . . . 8		Sand, fine, silty,	
and schist. . . . . 6		Shale, sandy, gray. . . . . 4		micaceous, arkosic,	
Granite, gray . . . . . 14		Shale, gray . . . . . 13		light-olive-gray;	
Schist. . . . . 2		Shale, sandy, blue. . . . . 12		contains a little	
Granite, rose . . . . . 5		Coal. . . . . 1		medium sand between	
Granite, gray; has soft		Shale, gray . . . . . 6		200 and 210 feet	
streaks . . . . . 12		Shale, blue . . . . . 27		and a little clay	
Granite, rose . . . . . 7		Shale, sandy, gray		between 230 and	
Granite, gray; has soft		and layers of sand. 12		240 feet . . . . . 40	
streaks . . . . . 12		Shale, gray and blue. 13		Sand, fine to coarse.	
Granite, rose . . . . . 28		Shale, sandy, blue		arkosic, subangular	
Granite, gray . . . . . 6		and layers of sand. 10		to subrounded, silty;	
Granite, rose . . . . . 37		Shale, blue . . . . . 18		grains coated with	
Granite, gray . . . . . 17		Shale, sandy, blue		white kaolinitic	
Granite, rose . . . . . 4		and layers of sand. 6		clay binder. . . . . 20	
Granite, gray . . . . . 11		Shale, dark-gray. . . . . 5		Sand, fine to medium,	
Granite, rose . . . . . 47		Shale, gray and blue. 10		arkosic, micaceous,	
Granite, gray . . . . . 87		<b>C6-65-16bcda. Alt. 6,350 ft.</b>		silty, firm, light-	
Granite, soft, gray . . . . . 88		Dawson Formation (upper		gray; grains coated	
Granite, brittle, black		part):		with white clay	
and rose; has soft		Topsoil . . . . . 2		binder . . . . . 30	
streaks; sloughs in		Clay, sandy, brown. . . . . 3		Clay, red, and about	
(water-bearing) . . . . . 10		Sandstone, gray . . . . . 7		40 percent fine sand	
<b>C5-70-14cbdc1. Alt. 7,130 ft.</b>		Sand. . . . . 5		Sand, silty. . . . . 10	
Precambrian:		Sandstone, gray . . . . . 12		Sand, medium to very	
Granite, decomposed . . . . . 10		Sand. . . . . 28		coarse; subrounded	
Granite, black and		Gravel. . . . . 3		arkosic very fine	
rose . . . . . 16		Sand. . . . . 17		gravel; and red and	
Schist, moist . . . . . 5		Clay, sandy, yellow . . . . . 15		orange clay. . . . . 10	
Granite, gray; has		Sandstone, gray . . . . . 4		Sand, fine to medium,	
soft streaks. . . . . 13		Sand. . . . . 2		mostly fine, arkosic,	
Granite, rose and		Sandstone, gray . . . . . 2		subrounded, and a	
gray . . . . . 8		Shale, blue and gray. 19		little light-olive-	
Granite, gray, and		Sand. . . . . 16		gray clay. . . . . 20	
quartz. . . . . 24		Shale, gray . . . . . 27		Sand, fine to medium,	
Granite, black; has		Sand. . . . . 10		and red and pale-	
soft streaks. . . . . 14		Clay, sandy, yellow . . . . . 6		orange clay. . . . . 10	
Granite, gray . . . . . 22		Sand. . . . . 14		Sand, fine to very	
Granite, rose (yields		Clay, sandy, yellow . . . . . 18		coarse, subrounded to	
water at 124 feet). . . . . 21		Shale, brown. . . . . 3		rounded, arkosic, a	
<b>C6-65-4cdbh. Alt. 6,246 ft.</b>		Shale, sandy, gray. . . . . 10		little silty and	
Dawson Formation (upper		Sand. . . . . 10		rounded very fine	
part):		Shale, sandy, gray. . . . . 30		gravel; grains are	
Sandstone . . . . . 56		Sand. . . . . 4		coated with kaolini-	
Shale . . . . . 108		Shale, gray . . . . . 37		tic clay . . . . . 30	
Sandrock. . . . . 9		Sand. . . . . 22		Sand, fine to very	
Shale . . . . . 144		<b>C6-65-18adaa. Alt. 6,295 ft.</b>		coarse, and rounded	
Sandrock. . . . . 44		Dawson Formation (upper		very fine gravel,	
Shale . . . . . 52		part):		very silty; grains	
Sandstone . . . . . 21		Sand, very fine,		heavily coated . . . . . 10	
Shale . . . . . 47		silty, light-gray . . . . . 10		Sand, fine to coarse,	
Sandstone . . . . . 9		Sand, very fine to		rounded, silty,	
<b>C6-65-6ddda. Alt. 6,100 ft.</b>		coarse, arkosic,		light-gray . . . . . 10	
Dawson Formation (upper		subrounded, silty,		Sand, fine to medium,	
part):		light-gray. . . . . 10		rounded, silty and	
Topsoil . . . . . 5		Sand, medium to		shaly, light-gray. . . . . 10	
Sandstone, yellow . . . . . 23		coarse, arkosic and		<b>C6-65-18cddd. Alt. 6,140 ft.</b>	
Shale, blue . . . . . 12		rounded very fine		Dawson Formation (upper	
Sand, blue . . . . . 77		gravel. . . . . 10		part):	
Gravel, sandy, white. . . . . 3		Gravel, very fine to		Clay and shale . . . . . 53	
Sand. . . . . 10		fine, coated,		Sandstone . . . . . 87	
Gravel (water). . . . . 10		rounded, arkosic,		Sand (water) . . . . . 50	
Clay. . . . . 25		and coarse to very		Shale. . . . . 10	
Sand (water). . . . . 15		coarse sand . . . . . 10		<b>C6-65-22cccc. Alt. 6,351 ft.</b>	
Shale, blue . . . . . 10		Sand, fine to coarse,		Dawson Formation (upper part):	
<b>C6-65-9bbch. Alt. 6,215 ft.</b>		silty, coated, sub-		Sand and sandy shale . . . . . 27	
Dawson Formation (upper		rounded, a little		Shale. . . . . 26	
part):		clay, and light-		Sand and gravel. . . . . 32	
Topsoil . . . . . 2		gray very fine		Shale. . . . . 20	
Clay, sandy, light-		gravel. . . . . 10		Shale, blue. . . . . 5	
gray. . . . . 4		Sand, very fine to		Shale, sandy . . . . . 25	
Clay, sandy, grayish-		coarse, subrounded,		Shale. . . . . 15	
green . . . . . 6		arkosic, silty,		<b>C6-65-27abcc. Alt. 6,324 ft.</b>	
Clay, sandy, fine,		yellowish-gray. . . . . 40		Dawson Formation (upper part):	
gray. . . . . 14		Sand, very fine to		Sand . . . . . 10	
Sand and gray fine		fine, silt, and		Shale. . . . . 25	
sandy clay. . . . . 33		silty clay; brown-		Sand and gravel. . . . . 40	
Ironrock, hard. . . . . 1		ish-gray. . . . . 10		Shale. . . . . 30	
Shale, yellowish-		Sand, medium to		Sand . . . . . 5	
gray. . . . . 13		coarse, rounded,		Shale. . . . . 13	
Sand, fine and layers		coated, arkosic. . . . . 10		Shale, blue. . . . . 25	
of sandy shale. . . . . 7		Sand, very fine to		<b>C6-65-27bcbg. Alt. 6,322 ft.</b>	
Ironrock. . . . . 1		medium, silty,		Dawson Formation (upper part):	
Shale, light-gray . . . . . 3		micaceous, subround-		Sand and gravel. . . . . 20	
Shale, gray . . . . . 9		ed, greenish-gray . . . . . 40		Shale. . . . . 9	
Shale, sandy, light-		Sand, coarse, rounded,		Sand and gravel. . . . . 46	
gray and sand . . . . . 6		arkosic; coated		Shale, sandy, gray . . . . . 80	
Shale, gray . . . . . 8		with clay binder. . . . . 10		Shale, sandy, blue . . . . . 25	
Shale, sandy, gray. . . . . 13		Sand, fine to medium		<b>C6-65-27cbcb. Alt. 6,271 ft.</b>	
Shale, light-gray . . . . . 13		arkosic, subrounded,		Dawson Formation (upper part):	
Shale, sandy, gray. . . . . 18		slightly micaceous,		Sand . . . . . 6	
Shale, gray . . . . . 7		brownish-gray, and		Shale, sandy . . . . . 24	
Shale, sandy, gray. . . . . 11		a little coarse sand;		Sand and gravel. . . . . 16	
Shale, gray . . . . . 7		grains coated with		Shale, sandy, blue . . . . . 96	
Shale, gray . . . . . 176		noncalcareous clay			
		binder. . . . . 20			

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C6-65-27qcbp.</b> ---Continued		<b>C6-65-32dccb.</b> ---Continued		<b>C6-66-9dacc.</b> Alt. 5,776.3 ft.	
Sand and gravel. . . . .	27	Sand, coarse. . . . .	13	Piney Creek Alluvium:	
Shale, blue. . . . .	57	Shale, blue. . . . .	3	Topsoil. . . . .	2.5
<b>C6-65-28aaps.</b> Alt. 6,317 ft.		<b>C6-65-33aaa.</b> Alt. 6,353 ft.		Clay, sandy, brown	
Dawson Formation (upper part):		Dawson Formation (upper part):		and sand. . . . .	2.5
Sand, gravel, and		Sand and gravel. . . . .	75	Clay. . . . .	5
boulders. . . . .	25	Shale. . . . .	37	Louviers Alluvium:	
Shale. . . . .	10	Sand and gravel. . . . .	33	Clay, sand, and some	
Sand, gravel, and		Shale, sandy, gray. . . . .	20	gravel. . . . .	10
sandy shale. . . . .	40			Gravel, sand, and	
Sand and gravel. . . . .	50			some clay. . . . .	10
Shale. . . . .	25			Gravel, coarse, and	
<b>C6-65-28abba.</b> Alt. 6,399 ft.		<b>C6-65-33addd.</b> Alt. 6,387 ft.		sand. . . . .	30
Dawson Formation (upper part):		Dawson Formation (upper part):		Dawson Formation (upper part):	
Sand and sandy shale. . . . .	25	Shale. . . . .	15	Clay, brown. . . . .	2
Shale. . . . .	10	Sand and gravel. . . . .	92	Clay, blue. . . . .	9
Sand, gravel, and		Shale. . . . .	23		
sandy shale. . . . .	70	Shale, sandy. . . . .	5		
Shale. . . . .	10				
Sandy shale. . . . .	17				
Shale. . . . .	15				
Shale, sandy. . . . .	3				
<b>C6-65-28bbba.</b> Alt. 6,333 ft.		<b>C6-65-33dccc.</b> Alt. 6,415 ft.		<b>C6-66-9dccc.</b> Alt. 5,791.3 ft.	
Piney Creek Alluvium:		Dawson Formation (upper part):		Piney Creek Alluvium:	
Sand. . . . .	7	Shale. . . . .	15	Topsoil. . . . .	4
Dawson Formation (upper part):		Shale, sandy. . . . .	10	Clay. . . . .	2
Shale, sandy. . . . .	7	Sand and gravel. . . . .	70	Broadway Alluvium:	
Sand and gravel. . . . .	71	Shale. . . . .	22	Sand and gravel. . . . .	5
Shale, blue. . . . .	44	Shale, sandy. . . . .	3	Louviers Alluvium:	
Shale, gray. . . . .	6			Gravel, dirty, sand,	
<b>C6-65-29abab.</b> Alt. 6,309 ft.		<b>C6-65-34abcc.</b> Alt. 6,276 ft.		rocks and clay. . . . .	10
Dawson Formation (upper part):		Piney Creek Alluvium:		Gravel, dirty, sand,	
Sand. . . . .	5	Sand. . . . .	5	rocks, and quite a	
Shale. . . . .	24	Dawson Formation (upper part):		lot of clay. . . . .	13
Sand and gravel. . . . .	31	Shale, sandy, blue. . . . .	15	Gravel and sand (not	
Shale. . . . .	35	Shale, sandy, gray. . . . .	40	too good). . . . .	5
Shale, sandy. . . . .	60	Sand and gravel. . . . .	12	Gravel and sand. . . . .	5
Shale. . . . .	10	Shale, sandy, gray. . . . .	33	Gravel, dirty, sand,	
Shale, sandy. . . . .	7	Sand and gravel. . . . .	30	and clay. . . . .	6
Shale. . . . .	8	Shale, sandy, gray. . . . .	10	Gravel. . . . .	21
		Shale, blue. . . . .	12	Clay. . . . .	3
		Sand and gravel. . . . .	3	Gravel. . . . .	1
				Clay and fine sand. . . . .	4
				Dawson Formation:	
				Shale. . . . .	6
					</

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth							
C6-66-16aada. --Continued Louviere Alluvium: Clay and streaks of sand . . . . . 15 35 Sand and gravel . . . . 55 90 Dawson Formation (upper part): Sand, gravel, and sandy shale . . . . . 45 135		C6-66-21aadc. Alt. 5,823.7 ft. Piney Creek Alluvium: Loam, sandy, dark- brown . . . . . 3 3 Broadway Alluvium: Sand, very fine to very coarse, sub- angular to well- rounded, arkosic, poorly sorted . . . 6 9 Louviere Alluvium: Sand, very fine to fine, calcareous, silty, subangular to subrounded, dark-yellowish- brown . . . . . 1 10 Clay, silty, sandy, crumbly, dark-brown Sand, medium to coarse, angular, loose, and fine gravel . . 1.5 14 Sand, very fine to fine, silty, micaceous, sub- angular to sub- rounded, arkosic, pale-yellowish- brown . . . . . 1 15 Silt, sandy, mica- ceous, pale- yellowish-brown and very sandy tan clay, contains montmorillonite . . 23.5 38.5 Gravel, very fine to fine, well-sorted, arkosic, sub- angular to rounded. 29 67.5 Sand, very coarse, arkosic, subangular to rounded, and very fine gravel . . 1.5 69 Dawson Formation (upper part): Sandstone, fine- to coarse-grained, pale-red and very pale-orange, non- calcareous; has overall pinkish- purple hue; sand is arkosic and angular to sub- angular, inter- layered with silty and sandy shale . . 8.5 77.5	C6-66-21adag. Alt. 5,823.7 ft. Louviere Alluvium: Silt, very sandy, calcareous, dusky- yellow; contains montmorillonite. . . 5 17.5 Silt, slightly sandy, very calcareous, pale-yellowish- brown; contains very fine sand . . . 12.5 30 Sand, very coarse, well-sorted, sub- angular to sub- rounded, arkosic . . 2.5 32.5 Sand, fine to very coarse, arkosic, subangular to rounded, poorly sorted, and some pale-yellowish- brown silt . . . . 5 37.5 Sand, coarse to very coarse, subangular to subrounded, well- sorted, arkosic. . . 6.5 44 Gravel, very fine to fine, arkosic, sub- angular to rounded, and about 50 per- cent coarse to very coarse sand. . . . 3.5 47.5 Sand, medium to very coarse, arkosic, subangular to rounded, and about 20 percent very fine gravel; contains cobbles. . . . . 5 52.5 Gravel, very fine to fine, arkosic, sub- angular to well- rounded, and about 30 percent very coarse sand; contains cobbles. . . . . 5 57.5 Sand, medium to very coarse, arkosic, sub- angular to rounded, and about 30 per- cent very fine gravel . . . . . 5 62.5 Gravel, very fine to fine, arkosic, sub- angular to sub- rounded, about 20 percent sand, and 10 percent silt; contains cobbles from 65.5 to 71.5 feet . . . . . 13 75.5 Cobbles. . . . . 2 77.5 Dawson Formation (upper part): Shale, silty and sandy, micaceous, dark-yellowish- brown and fine- grained sandstone; contains some fine gravel, montmoril- lonite, and much lignite. . . . . 20 97.5									
C6-66-16bbba. Alt. 5,769 ft. Post-Piney Creek Alluvium: Sand and gravel . . . . 10 10 Louviere Alluvium: Clay and streaks of sand . . . . . 10 20 Sand and gravel . . . . 7 27 Shale . . . . . 45 72 Louviere Alluvium and Dawson Formation, undifferentiated: Sand, gravel, and sandstone . . . . . 10 82 Dawson Formation: Shale . . . . . 23 105		C6-66-16bbba. Alt. 5,806 ft. Piney Creek Alluvium: Shale (probably clay). 5 5 Louviere Alluvium: Sand and gravel . . . . 12 17 Rock, broken . . . . . 2 19 Sand and gravel . . . . 36 55 Dawson Formation: Shale . . . . . 50 105		C6-66-17aabb. Alt. 5,826 ft. Dawson Formation (upper part): Shale, sandy . . . . . 75 75 Shale, blue . . . . . 17 92 Shale, brown . . . . . 13 105 Shale, gray . . . . . 12 117 Shale, blue . . . . . 25 142 Sand . . . . . 8 150		C6-66-18aabb. Alt. 5,913 ft. Broadway and Louviere Alluvium, undifferentiated: Sand and gravel . . . . 47 47 Dawson Formation (upper part): Shale, sandy, gray . . 20 67 Shale, blue . . . . . 6 73 Upper conglomerates: Sand and gravel . . . . 42 115 Shale, blue . . . . . 35 150		C6-66-21aach. Alt. 5,809.5 ft. Post-Piney Creek Alluvium: Soil, loamy, sandy, plastic . . . . . 4 4 Louviere Alluvium: Sand, coarse to very coarse, subangular to rounded, arkosic; about 20 percent very fine to fine gravel; and a little yellowish-gray micaceous silt; silt increases to about 40 percent between 8.0 and 10 feet. . . . . 11 15 Sand, fine to very coarse, well-sorted, arkosic, subangular to subrounded, and about 15 percent very fine to fine gravel . . . . . 7.5 22.5 Gravel, very fine to fine, subangular to rounded, well-sorted, arkosic and about 10 percent very coarse sand . . . . . 10 32.5 Sand, coarse to very coarse, subangular to subrounded, arkosic and about 10 percent very fine to fine gravel . . . . . 10 42.5 Gravel, very fine to fine, arkosic, sub- angular to subrounded, and about 30 percent coarse to very coarse sand; contains cobbles at 44 feet and between 47.5 and 52.5 feet. . . . . 11 53.5 Dawson Formation (upper part): Sandstone, silty, non- calcareous very-pale- orange and moderate- orange-pink; contains about 10 percent silt 4 57.5		C6-66-21abda. Alt. 5,803.5 ft. Post-Piney Creek Alluvium: Sand, very fine to medium, clean, loose, angular to subangular, arkosic, yellowish- gray . . . . . 3 3 Louviere Alluvium: Sand, medium to coarse, arkosic, angular to sub- rounded, very micaceous; contains about 10 percent very fine gravel. . 14.5 17.5 Sand, coarse to very coarse, angular to subrounded, arkosic, well-sorted, and about 15 percent very fine to fine gravel . . . . . 1.5 19 Dawson Formation (upper part): Shale, silty, very sandy, arkosic, noncalcareous, pale-olive; contains montmoril- lonite . . . . . 8.5 27.5	C6-66-21adad. Alt. 5,828.9 ft. Piney Creek Alluvium: Soil, dark . . . . . 2.5 2.5 Broadway Alluvium: Sand, medium to coarse, arkosic, subangular to sub- rounded, silty, pale-yellowish- brown; contains scattered arkosic very fine to fine gravel . . . . 10 12.5	C6-66-22abdd. Alt. 5,869 ft. Piney Creek Alluvium: Topsoil . . . . . 3 3 Louviere Alluvium: Clay and sand. . . . 35 38 Dawson Formation (upper part): Sand, fine, and silt. 12 50 Sand, gravel, and clay . . . . . 25 75 C6-66-22bacc. Alt. 5,843.6 ft. Piney Creek Alluvium: Topsoil . . . . . 5 5 Clay, sandy . . . . . 4 9 Broadway Alluvium: Gravel, very fine, and coarse sand. . . . . 17 26 Louviere Alluvium: Sand, coarse, very fine gravel, and some clay. . . . . 2 28 Gravel, very fine, wet. . . . . 42 70 Dawson Formation (upper part): Shale . . . . . 7.5 77.5
		C6-66-22bacc. Alt. 5,846.9 ft. Piney Creek Alluvium: Topsoil, sandy . . . . 3 3 Louviere Alluvium: Clay, yellow . . . . . 18 21										

Table 3.—Loss of wells and test holes—Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C6-66-22bqcd.---Continued</b>		<b>C6-66-22bcab2.---Continued</b>		<b>C6-66-22bcba.---Continued</b>	
Clay and gravel. . . . .	9	Gravel, coarse, and fine sand. . . . .	11	Silt, pale-yellow- ish-brown. . . . .	2.5
Gravel. . . . .	29		85	Silt, sandy, calcare- ous, yellowish- gray. . . . .	6.5
<b>C6-66-22badc. Alt. 5,856.1 ft.</b>		<b>Dawson Formation (upper part):</b>		<b>Broadway Alluvium:</b>	
Piney Creek Alluvium:		Sandstone, shaly, arkosic, and very sandy shale; contains poorly sorted fine to very coarse sand and very fine gravel; shale and sandstone crumble easily. . . . .	5	Sand, very fine to coarse, arkosic, silty, micaceous, calcareous, grayish-yellow. . . . .	3.5
Topsoil. . . . .	6		90	Sand, very coarse, fairly well-sorted arkosic, subangular to subrounded, and very fine gravel. . . . .	1.5
Broadway Alluvium:		<b>C6-66-22bcab3. Alt. 5,838.6 ft.</b>		Gravel, very fine. . . . .	1.5
Sand. . . . .	4	Piney Creek Alluvium:		Louviers Alluvium:	
Louviers Alluvium:		Topsoil, sandy, crumbly. . . . .	1	Sand, very coarse, well-sorted arkosic, subangular to sub- rounded, and very fine gravel; contains a little moderate yellow silt. . . . .	5
Clay. . . . .	1	Silt, sandy, calcare- ous, dusky-yellow; contains fine sand. . . . .	9	Sand, coarse to very coarse, arkosic, subangular to well- rounded, and about 20 percent very fine gravel. . . . .	5
Clay, sandy. . . . .	10	Silt, very sandy, micaceous, very calcareous, dusky- yellow. . . . .	9	Sand, coarse, and clay. . . . .	5
Clay, blue, and very fine gravel. . . . .	6.5		19	Gravel, very fine. . . . .	11
Clay, sandy, brown. . . . .	5	Broadway Alluvium:		Cobbles. . . . .	4.5
Clay, brown. . . . .	2.5	Sand, coarse to very coarse, angular to subangular, arkosic, and very fine sub- rounded to well- rounded gravel. . . . .	5	Gravel, very fine. . . . .	5
Clay, sandy. . . . .	2.5	Sand, medium to very coarse, arkosic, subangular, silty, and about 10 per- cent very fine gravel. . . . .	3.5	Gravel, very fine, very hard from 64.0 to 65.0 feet. . . . .	14
Gravel, very fine. . . . .	20.5		24	Cobbles. . . . .	3
Cobbles. . . . .	4	Louviers Alluvium:		Dawson Formation (upper part):	
Dawson Formation:		Gravel, very fine, and medium to coarse, angular sand; contains thin beds of silt. . . . .	7.5	Shale, soft, blue. . . . .	6.5
Shale. . . . .	3		35		
<b>C6-66-22bcac. Alt. 5,839.8 ft.</b>		<b>C6-66-22bcab2. Alt. 5,839.4 ft.</b>		<b>C6-66-22bcba. Alt. 5,834.3 ft.</b>	
Piney Creek Alluvium:		Piney Creek Alluvium:		Piney Creek Alluvium:	
Clay. . . . .	2	Loam, sandy, dark- brown. . . . .	1	Topsoil. . . . .	4
Sand. . . . .	4	Silt, very sandy, micaceous, non- calcareous, dark- yellowish-brown. . . . .	5	Louviers Alluvium:	
Clay, sandy. . . . .	2.5	Silt, very sandy, very calcareous, light-olive-gray. . . . .	7	Clay, sandy. . . . .	18
Clay, soft. . . . .	1.5		13	Sand and medium to coarse gravel. . . . .	39
Broadway Alluvium:		Broadway Alluvium:		Dawson Formation:	
Sand, coarse, and very fine gravel. . . . .	8	Sand, medium to very coarse, subangular, very silty, arkosic, about 50 percent silt, and very fine to fine gravel. . . . .	4.5	Shale, blue. . . . .	3
Gravel, very fine. . . . .	8		17.5		
Louviers Alluvium:		Gravel, very fine, and medium to coarse, angular sand; contains thin beds of silt. . . . .	15	<b>C6-66-22bdhb. Alt. 5,843 ft.</b>	
Clay, blue. . . . .	10	Sand, medium to very coarse, arkosic, angular to sub- angular, and 10 percent very fine gravel. . . . .	2.5	Piney Creek Alluvium:	
Gravel, very fine. . . . .	3.5		57.5	Topsoil. . . . .	5
Cobbles and gravel. . . . .	10.5	Gravel, very fine, and medium to coarse, angular sand; contains thin beds of silt. . . . .	6.5	Broadway Alluvium:	
Gravel, very fine. . . . .	12	Cobbles. . . . .	1	Sand, fine. . . . .	15
Cobbles. . . . .	1		64	Louviers Alluvium:	
Gravel, very fine. . . . .	7	Sand, medium to very coarse, arkosic, angular to subangu- lar, and about 20 percent very fine gravel. . . . .	5	Clay, sandy. . . . .	30
Cobbles. . . . .	3.5		70	Sand and medium to coarse gravel. . . . .	30
Gravel. . . . .	1.5	Sand, very fine to very coarse, arkosic, subangular to round- ed, poorly sorted, and about 20 percent very fine to fine gravel; contains cobbles. . . . .	2.5	Dawson Formation (upper part):	
Cobbles. . . . .	3.5		72.5	Shale. . . . .	20
Dawson Formation:		Sand, very fine to very coarse, sub- angular to rounded, arkosic, very fine to fine gravel, and a few thin silt beds; contains mica between 80 and 82.5 feet. . . . .	13.5	Shale, sandy. . . . .	60
Shale, brown. . . . .	4	Dawson Formation (upper part):		Upper conglomerate: Sandstone, white. . . . .	55
<b>C6-66-22bcab2. Alt. 5,839.4 ft.</b>		Shale, very silty, very micaceous, noncalcareous; contains montmoril- lonite, fine sand, and very fine gravel. . . . .	6.5	Shale. . . . .	222
Piney Creek Alluvium:			86	<b>C6-66-22cbbc. Alt. 5,833.9 ft.</b>	
Loam, sandy, dark- brown. . . . .	1			Piney Creek Alluvium:	
Silt, very sandy, micaceous, non- calcareous, dark- yellowish-brown. . . . .	5			Topsoil. . . . .	5
Silt, very sandy, very calcareous, light-olive-gray. . . . .	7			Louviers Alluvium:	
Broadway Alluvium:				Clay, sandy. . . . .	19
Sand, medium to very coarse, subangular, very silty, arkosic, about 50 percent silt, and very fine to fine gravel. . . . .	4.5			Sand and medium to coarse gravel. . . . .	37
Sand, very fine to very coarse, sub- angular, very silty, arkosic, light- olive-gray. . . . .	1.5			Dawson Formation:	
Louviers Alluvium:				Shale, blue. . . . .	3
Silt, very sandy, light-olive-gray. . . . .	6.5				
Sand, very fine to medium, subangular, very silty, arkosic, noncalcareous, yellowish-gray. . . . .	7.5			<b>C6-66-23baad. Alt. 5,956 ft.</b>	
Sand, very fine to medium, silty, slightly calcareous. . . . .	2.5			Dawson Formation (upper part):	
Silt, very sandy, light-olive-gray. . . . .	7.5			Sand. . . . .	7
Sand, fine to very coarse, arkosic, angular to sub- angular, about 40 percent coarse, and a little very fine gravel; contains scattered cobbles from 51.5 to 52 feet. . . . .	17.5			Shale. . . . .	15
Sand, fine to coarse, very micaceous, angular to subangu- lar and 20 percent very fine gravel; contains scattered cobbles. . . . .	7.5			Shale, sandy. . . . .	3
				Shale. . . . .	20
				Shale, blue. . . . .	60
Sand, medium to coarse arkosic, angular to subangular, about 40 percent coarse, and about 10 percent very fine gravel. . . . .	4			<b>C6-66-21bbcd. Alt. 5,890 ft.</b>	
				Piney Creek Alluvium:	
				Clay, sandy. . . . .	16
				Dawson Formation (upper part):	
				Shale. . . . .	89
				Gravel. . . . .	5
				Shale, sandy. . . . .	7
				Shale. . . . .	33
				<b>C6-66-23cbac. Alt. 6,014 ft.</b>	
				Post-Piney Creek alluvium:	
				Sand. . . . .	5

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C6-66-23cbag.</b> --Continued		<b>C6-66-33babg.</b> --Continued		<b>C6-67-13bbba.</b> --Continued	
Louviers Alluvium:		Sand, gravel, and boulders . . . . .	25	Shale, blue . . . . .	22
Clay . . . . .	11	Sandstone . . . . .	71	Sand and gravel . . . . .	33
Sand and gravel . . . . .	4	Shale, blue . . . . .	24		130
Dawson Formation (upper part):		Sandstone . . . . .	21	<b>C6-67-18babg.</b> Alt. 5,947 ft.	
Shale . . . . .	100	Shale, blue . . . . .	24	Dawson Formation (upper part):	
Shale, sandy . . . . .	13		165	Topsoil . . . . .	4
Sand and gravel . . . . .	3	<b>C6-66-33cbg.</b> Alt. 6,069 ft.		Clay, gray . . . . .	41
	135	Dawson Formation (upper part):		Sandstone, soft . . . . .	15
<b>C6-66-23dcd.</b> Alt. 6,045 ft.		Shale, sandy . . . . .	15	Clay, gray and bluish-gray . . . . .	70
Dawson Formation (upper part):		Sand and gravel . . . . .	30	Clay, sandy . . . . .	13
Sand and gravel . . . . .	57	Shale . . . . .	105	Ironrock, hard layer . . . . .	1
Shale, sandy, gray . . . . .	20		150	Clay, sandy . . . . .	10
Shale, red . . . . .	33	<b>C6-66-34abcd.</b> Alt. 5,888 ft.		Ironrock, hard layer . . . . .	2
Shale, gray . . . . .	20	Broadway and Louviers Alluvium and Dawson Formation, undifferentiated:		Clay, sandy . . . . .	23
	130	Sand, gravel, and sandy shale . . . . .	50	Ironrock . . . . .	1
<b>C6-66-24cccg.</b> Alt. 6,049 ft.		Dawson Formation (upper part):		Clay, bluish-gray, and shale . . . . .	76
Dawson Formation (upper part):		Shale . . . . .	25	Upper conglomerate:	
Sand . . . . .	5	Sand, gravel, and sandy shale . . . . .	40	Shale, dark-gray, and alternate layers of water-bearing sandstone . . . . .	56
Shale . . . . .	22	Shale . . . . .	30		334
Sand and gravel . . . . .	38	Sand, gravel, and shale . . . . .	25	<b>C6-67-22cdcc.</b> Alt. 6,312 ft.	
Shale, sandy, and gravel . . . . .	30	Shale . . . . .	10	Castle Rock Conglomerate:	
Shale, red . . . . .	25		180	Sand and gravel . . . . .	20
	120	<b>C6-66-34bagb.</b> Alt. 5,875 ft.		Dawson Formation (upper part):	
<b>C6-66-24dddd.</b> Alt. 6,067 ft.		Piney Creek Alluvium:		Sandstone . . . . .	5
Dawson Formation (upper part):		Soil and clay . . . . .	17	Shale . . . . .	10
Sand . . . . .	7	Broadway Alluvium:		Sand, gravel, and sandy shale . . . . .	125
Shale, sandy, gray . . . . .	13	Sand . . . . .	11	Shale, sandy . . . . .	6
Sand and gravel . . . . .	25	Louviers Alluvium:		Shale . . . . .	14
No sample . . . . .	30	Clay . . . . .	10		180
Shale, blue . . . . .	25	Gravel (water-bearing) . . . . .	24	<b>C6-67-27cdga.</b> Alt. 6,210 ft.	
Shale, gray . . . . .	14	Dawson Formation:		Dawson Formation (upper part):	
Shale, blue . . . . .	31	Shale, blue, at 62 feet		Sand and white clay . . . . .	70
	145			Gravel, coarse . . . . .	10
<b>C6-66-27cccg.</b> Alt. 5,878.6 ft.		<b>C6-66-34bbag.</b> Alt. 5,881 ft.		Clay and sand . . . . .	20
Piney Creek Alluvium:		Broadway and Louviers Alluvium, undifferentiated:		Rock, hard, brown . . . . .	1
Soil . . . . .	7	Sand, gravel, and boulders . . . . .	34	Clay, brown . . . . .	11
Louviers Alluvium:		Dawson Formation (upper part):		Shale, blue . . . . .	8
Clay, white . . . . .	10	Shale, sandy . . . . .	26		120
Gravel . . . . .	1	Sand and sandy shale . . . . .	76	<b>C6-67-33dbca.</b> Alt. 6,404 ft.	
Clay . . . . .	4	Shale, blue . . . . .	9	Dawson Formation (upper part):	
Gravel . . . . .	3	Shale, sandy . . . . .	95	Sand and gravel . . . . .	40
Clay . . . . .	10		240	Shale . . . . .	50
Gravel . . . . .	11	<b>C6-67-6abag.</b> Alt. 5,705 ft.		Sand, gravel, and sandy shale . . . . .	50
Clay . . . . .	6	Dawson Formation (upper part):		Shale . . . . .	25
Gravel, coarse . . . . .	8	Topsoil . . . . .	1		165
Dawson Formation (upper part):		Shale, brown . . . . .	13	<b>C6-68-1cga.</b> Alt. 5,828 ft.	
Shale, sandy, blue . . . . .	6	Gravel . . . . .	2	Dawson Formation (upper part):	
	66	Clay, yellow . . . . .	7	Topsoil . . . . .	4
<b>C6-66-27ccdd2.</b> Alt. 5,866.8 ft.		Shale, brown and gray . . . . .	24	Clay, sandy . . . . .	7
Piney Creek Alluvium:		Sandstone, gray and shale . . . . .	4	Sandstone, soft . . . . .	46
Soil . . . . .	3	Shale, brown and gray . . . . .	62	Clay, blue . . . . .	31
Broadway Alluvium:		Shale, sandy, gray . . . . .	5	Clay, gray . . . . .	16
Gravel . . . . .	16	Shale, brown and gray . . . . .	79	Clay and blue shale . . . . .	54
Louviers Alluvium:		Shale, sandy, brown . . . . .	5	Clay, brown . . . . .	13
Clay . . . . .	4	Sand and gray shale . . . . .	4	Clay and blue shale . . . . .	54
Gravel . . . . .	2	Shale, gray . . . . .	77	Sandstone, conglomerate, hard . . . . .	2
Clay . . . . .	6	Sand, coarse and gray shale . . . . .	9	Clay, blue . . . . .	13
Gravel . . . . .	5	Shale . . . . .	292	Clay, brownish-gray . . . . .	7
Boulders or soft rock . . . . .	1	Limestone . . . . .	294	Clay, blue, occasional sandy streaks . . . . .	18
Gravel . . . . .	10	Sand . . . . .	2	Clay, dirty black . . . . .	11
Boulders . . . . .	4	Limestone and sand . . . . .	8	Shale, black, and alternating layers of water-bearing sandstone . . . . .	14
Dawson Formation:		Shale, brown . . . . .	8		332
Shale . . . . .	6	Sand and gray shale . . . . .	6	<b>C6-68-4aaba.</b> Alt. 5,540 ft.	
	57	Limestone at 318 feet		Slocum Alluvium:	
<b>C6-66-27dbcg.</b> Alt. 5,861.7 ft.		<b>C6-67-8bbca.</b> Alt. 5,820.0 ft.		Topsoil . . . . .	1
Piney Creek Alluvium:		Piney Creek Alluvium:		Clay, brown and sand . . . . .	2
Soil . . . . .	6	Clay, sandy . . . . .	4	Sand and gravel . . . . .	36
Louviers Alluvium:		Broadway Alluvium:		Dawson Formation (upper part):	
Clay, blue . . . . .	16	Sand . . . . .	7	Clay, sandy, brown . . . . .	27
Gravel . . . . .	7	Louviers Alluvium:		Shale, gray . . . . .	8
Clay . . . . .	1	Clay, yellow . . . . .	15	Sandstone, gray . . . . .	8
Gravel, coarse . . . . .	12	Sand . . . . .	11	Shale, gray . . . . .	3
Dawson Formation:		Dawson Formation (upper part):		Sandstone, gray . . . . .	2
Shale . . . . .	2	Shale, gray . . . . .	32	Sandstone and layers of shale . . . . .	9
	44	Shale, brown . . . . .	2	Sandstone, coarse-grained and layers of gray shale . . . . .	5
<b>C6-66-30abag.</b> Alt. 6,131 ft.		Shale, gray . . . . .	6	Shale, gray . . . . .	79
Dawson Formation (upper part):		Sand . . . . .	1	Sandstone, blue and gray . . . . .	12
Shale . . . . .	10	Coal . . . . .	1	Shale, gray . . . . .	6
Sand . . . . .	5	Shale, sandy, brown . . . . .	4	Sandstone, gray . . . . .	11
Shale, sandy . . . . .	15	Shale, gray . . . . .	17	Shale, gray . . . . .	44
Sand and gravel . . . . .	15	Sand (water bearing) . . . . .	3	Shale, sandy, blue . . . . .	9
Shale, sandy . . . . .	45	Shale, gray and blue . . . . .	18	Shale, gray . . . . .	11
Sand . . . . .	10		121	Dawson Formation (lower part):	
Shale . . . . .	18	<b>C6-67-13aga.</b> Alt. 5,877 ft.		Sand (Middle conglomerate, 273 to 368 feet.) . . . . .	13
Shale, sandy . . . . .	2	Dawson Formation (upper part):		Shale, gray . . . . .	5
	120	Sand and gravel . . . . .	45		286
<b>C6-66-10ddcd.</b> Alt. 5,960 ft.		Shale, blue . . . . .	40		291
Dawson Formation (upper part):		Sand and gravel . . . . .	30		
Topsoil . . . . .	3	Shale, blue . . . . .	15		
Gravel . . . . .	23		150		
Shale . . . . .	2				
	28	<b>C6-67-13bba.</b> Alt. 5,958 ft.			
<b>C6-66-11abab.</b> Alt. 5,911 ft.		Dawson Formation (upper part):			
Dawson Formation (upper part):		Sand and gravel . . . . .	45		
Shale, sandy . . . . .	5	Shale, blue . . . . .	40		
Boulders, sand, and gravel . . . . .	50	Sand and gravel . . . . .	30		
Shale . . . . .	95	Shale, blue . . . . .	15		
	150				
<b>C6-66-11babg.</b> Alt. 5,958 ft.		Dawson Formation (upper part):			
Dawson Formation (upper part):		Shale, sandy . . . . .	75		
			75		

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C6-68-1aaba. --Continued</b>		<b>C6-68-6dcdh. --Continued</b>		<b>C6-68-11agbc. --Continued</b>	
Sand . . . . .	4	Shale, sandy, gray . . . . .	22	Conglomerate, coarse, hard, sandy . . . . .	19
Shale, gray . . . . .	17	Shale, gray, and fine sand . . . . .	11	Clay, dirty, brown, and blue clay and shale . . . . .	20
Shale, sandy, gray . . . . .	7	Coal and gray shale . . . . .	10	Sandstone . . . . .	3
Shale, gray . . . . .	8	Shale, gray . . . . .	14	Clay, brown . . . . .	23
Sand . . . . .	21	Sand, fine, and gray shale . . . . .	34	Upper conglomerate: Clay, blue, and alternating layers of water-bearing sandstone . . . . .	42
Shale, gray and blue layers of shale . . . . .	15	Shale, gray . . . . .	20		
Shale, gray and blue . . . . .	22				
Sand . . . . .	2	<b>C6-68-7bada. Alt. 5,486.4 ft.</b>		<b>C6-68-14bdda2. Alt. 5,996.0 ft.</b>	
Sandstone, hard . . . . .	1	Slocum Alluvium: Sand, fine . . . . .	14	Dawson Formation (upper part): Sand, surface . . . . .	50
Coal . . . . .	1	Sand and brown clay . . . . .	15	Sandrock . . . . .	93
Shale, gray . . . . .	16	Clay, sandy, brown . . . . .	23	Clay . . . . .	129
Lower conglomerate: Sand . . . . .	6	Dawson Formation: Shale, brown . . . . .	25	Sandrock, hard . . . . .	140
Sandstone . . . . .	10			Sand (small amount of water) . . . . .	190
Shale, gray . . . . .	9	<b>C6-68-7bbba. Alt. 5,406.5 ft.</b>		Clay and shale . . . . .	240
Sand . . . . .	7	Piney Creek Alluvium: Clay, sandy . . . . .	4	Sandrock . . . . .	280
Shale, gray . . . . .	3	Broadway and Louviers Alluvium, undifferentiated: Gravel . . . . .	36	Clay and shale . . . . .	325
Sand . . . . .	3	Louviers Alluvium: Rock . . . . .	2	Sandrock (Upper conglomerate, 125 to 592 feet.) (small amount of water) . . . . .	360
Shale, blue and gray sand and layers of gray shale . . . . .	5	Dawson Formation: Gravel . . . . .	43	Clay and shale . . . . .	430
Sand . . . . .	9	Shale . . . . .	9	Sandrock . . . . .	445
Shale, gray . . . . .	5	<b>C6-68-7dadd. Alt. 5,548.4 ft.</b>		Clay and shale . . . . .	475
Sand . . . . .	4	Eolian sand: Sand, very fine to very coarse, sub-rounded, poorly sorted, arkosic, and dark-yellowish-brown silt . . . . .	2.5	Sandrock . . . . .	510
Shale, gray . . . . .	4			Clay and shale . . . . .	525
Shale, gray . . . . .	28	Slocum Alluvium: Sand, poorly sorted, arkosic; a little very fine gravel; and grayish-orange noncalcareous silt . . . . .	5	Sandrock (fair amount of water) . . . . .	592
Limestone . . . . .	1	Sand, medium to very coarse; subrounded to well-rounded, very fine gravel, and a little pale-yellowish-brown silt . . . . .	24	Clay and shale . . . . .	635
Sand . . . . .	8			Sandrock, hard, some iron . . . . .	640
Shale, gray . . . . .	2	Dawson Formation (upper part): Shale, silty, sandy, micaceous, noncalcareous, pale-yellowish-brown; contains very fine sand . . . . .	1	Sandrock . . . . .	700
Sandstone . . . . .	2	Shale, silty; noncalcareous yellowish-gray; contains montmorillonite . . . . .	5	Clay and shale . . . . .	780
Shale, gray . . . . .	10	<b>C6-68-8abbd. Alt. 5,547 ft.</b>		Dawson Formation (lower part): Sandrock and sand (Middle conglomerate, 780 to 847 feet.) (water) . . . . .	786
Sand . . . . .	23	Eolian sand: Soil . . . . .	2	Sandrock, hard . . . . .	820
Shale, gray . . . . .	4	Sand and yellow clay . . . . .	17	Sand (water) . . . . .	847
Sand . . . . .	8	Dawson Formation (upper part): Clay, sandy, yellow . . . . .	11	Clay and shale . . . . .	900
Shale, gray . . . . .	15	Sandstone, brown . . . . .	22	Lower conglomerate: Sandrock (good water) . . . . .	1,012
Sand, fine, gray . . . . .	2	Clay, yellow . . . . .	31		
Shale, gray . . . . .	14	Shale, blue . . . . .	34	<b>C6-68-14dbbc. Alt. 5,996 ft.</b>	
Sand, fine, gray . . . . .	8	Shale, blue and gray . . . . .	61	Dawson Formation (upper part): Sand, yellow . . . . .	85
Shale, gray . . . . .	12			Clay, blue . . . . .	140
Sand . . . . .	21	<b>C6-68-11agbc. Alt. 5,944.0 ft.</b>		Sand, coarse, reddish (water at 190 feet) . . . . .	215
Sandstone . . . . .	1	Dawson Formation (upper part): Topsoil . . . . .	3	Shale, blue . . . . .	300
Sand . . . . .	1	Sandstone, coarse, soft . . . . .	69	Sand, light-colored (Upper conglomerate, 100 to 690 feet.) . . . . .	350
Shale, gray . . . . .	13	Clay, gray . . . . .	75	Shale, blue . . . . .	530
		Sandstone, coarse . . . . .	92	Sand, reddish . . . . .	635
		Clay, gray; contains layer of coal . . . . .	7	Shale, blue . . . . .	670
		Clay, red . . . . .	106	Sand, gray (water) . . . . .	690
		Clay, blue-gray . . . . .	120	Shale, blue . . . . .	710
		Clay, sandy and shale . . . . .	132	Sand (very little water) . . . . .	735
		Ironrock, hard . . . . .	134	Shale, blue . . . . .	755
		Clay, blue . . . . .	177	Dawson Formation (lower part): Middle conglomerate: Sand (water) . . . . .	780
		Clay, gray and coarse sandstone in alternate layers . . . . .	16	Shale, sandy . . . . .	800
				<b>C6-68-16abaa. Alt. 5,684 ft.</b>	
				Eolian sand: Topsoil . . . . .	40
				Dawson Formation (upper part): Sand (a little water) . . . . .	60
				Clay, greenish . . . . .	90
				Sand, soft (a little water) . . . . .	115
				Shale, blue . . . . .	155
				Sand, very soft (Upper conglomerate, 155 to 200 feet.) (good water) . . . . .	200
				Shale, soft, blue . . . . .	275
				Dawson Formation (lower part): Sand, red (Middle conglomerate, 275 to 315 feet.) (water-bearing) . . . . .	315
				Shale, cavey, blue . . . . .	408
				Lower conglomerate: Sand, soft (water-bearing) . . . . .	445
				Sand, gray (water-bearing) . . . . .	450
				Sand (water-bearing) . . . . .	465
				<b>C6-68-17bdad. Alt. 5,688.0 ft.</b>	
				Eolian sand:	



Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C6-68-17bdad.</b> --Continued		<b>C6-68-18abab.</b> --Continued		<b>C6-68-18badg.</b> --Continued	
Soil . . . . .	2	Gravel, very fine to		Dawson Formation (upper part):	
Sand . . . . .	23	fine, arkosic,		Shale, silty, non-	
Dawson Formation (upper part):		well-sorted, sub-		calcareous, pale-	
Clay, sandy . . . . .	22	angular to sub-		olive; contains	
Shale, blue and gray .	150	rounded . . . . .	1.5 44	montmorillonite . .	1.5 27.5
Dawson Formation (lower part):		Dawson Formation (upper part):		<b>C6-68-18bdbb.</b> Alt. 5,471.9 ft.	
Middle conglomerate:		Shale, silty, noncal-		Louviers Alluvium:	
Sand . . . . .	28	careous, pale-olive;		Gravel, very fine to	
Shale, gray . . . . .	18	contains montmoril-		fine, subangular to	
Shale, sandy, gray . .	8	lonite . . . . .	3.5 47.5	subrounded, arkosic,	
Shale, gray . . . . .	16			very silty (about	
Sand . . . . .	10	<b>C6-68-18abcb2.</b> Alt. 5,443.4 ft.		50 percent silt),	
Shale, gray . . . . .	4	Piney Creek Alluvium:		moderate-yellowish-	
Sand . . . . .	5	Silt, slightly sandy,		brown . . . . .	2.5 2.5
Sand and shale in		noncalcareous,		Gravel, very fine to	
alternating layers .	64	olive-gray . . . . .	5 5	medium (about 10	
Lime . . . . .	1	Broadway Alluvium:		percent medium),	
Shale, gray . . . . .	3	Sand, coarse to very		fairly well-sorted,	
		coarse, arkosic,		arkosic, sub-	
		subangular to		angular to rounded. 11.5	14
		rounded, and about		Silt, very sandy,	
		20 percent very		noncalcareous, pale-	
		fine to fine		yellowish-orange . .	1 15
		arkosic gravel . . .	7.5 12.5	Gravel, very fine to	
		Louviers Alluvium:		medium, subangular	
		Gravel, well-sorted,		to subrounded.	
		about 50 percent		arkosic, about 20	
		very fine gravel,		percent medium	
		10 percent fine		and pale-yellowish-	
		gravel, and very		orange silt . . . . .	2.5 17.5
		fine to fine		Sand, poorly sorted,	
		arkosic gravel;		arkosic, subangular	
		contains a bed of		to subrounded,	
		gray sticky clay		about 20 percent	
		from 18.0 to		very fine to medium	
		18.5 feet . . . . .	25.5 38	gravel, and pale-	
		Dawson Formation (upper part):		orange silt . . . . .	5 22.5
		Shale, silty, non-		Gravel, very fine to	
		calcareous, medium-		fine, fairly well-	
		light-gray; contains		sorted, arkosic,	
		montmorillonite . .	2 40	subangular to sub-	
		<b>C6-68-18abcb3.</b> Alt. 5,443.7 ft.		rounded, and about	
		Piney Creek Alluvium:		20 percent very	
		Silt, sandy, noncal-		coarse sand . . . . .	2.5 25
		careous, dark-		Gravel, very fine,	
		yellowish-brown;		subangular to well-	
		contains fine		rounded, sand, and	
		sand . . . . .	3 3	grayish-orange	
		Silt, very sandy and		silt . . . . .	1 26
		gravelly, noncal-		Gravel, very fine to	
		careous, dusky-		fine, well-sorted,	
		yellowish-brown . .	3 6	subangular to well-	
		Broadway Alluvium:		rounded, arkosic,	
		Gravel, very fine to		loose, about 60	
		medium, mostly very		percent very fine . .	8 34
		fine, arkosic,		Silt, grayish-orange.	1 35
		fairly well-sorted,		Gravel, very fine,	
		subangular to sub-		well-sorted sub-	
		rounded . . . . .	4 10	angular to well-	
		Louviers Alluvium:		rounded, arkosic,	
		Gravel, very fine to		and about 40 per-	
		medium, and about		cent very coarse	
		30 percent dark-		sand . . . . .	2.5 37.5
		yellowish-brown		Sand, medium to very	
		noncalcareous		coarse, arkosic,	
		silt . . . . .	7 17	angular to sub-	
		Gravel, fine, very well-		angular, and poorly	
		sorted, arkosic,		sorted very fine	
		subangular to		to medium gravel . .	1.5 39
		rounded, clean;		Dawson Formation (upper part):	
		becomes coarser		Shale, sandy, silty,	
		at 29 feet . . . . .	20.5 37.5	noncalcareous, gray-	
		Dawson Formation (upper part):		ish-orange, and	
		Sandstone, very fine-		arkosic sandstone . .	8.5 47.5
		grained, very silty,			
		noncalcareous, very		<b>C6-68-23addg.</b> Alt. 6,128 ft.	
		micaceous, medium-		Dawson Formation (upper part):	
		gray; grains are		Topsoil . . . . .	2 2
		very well rounded		Clay, gray . . . . .	2 4
		and frosted; contains		Shale, gray, green	
		scattered angular		and yellow . . . . .	53 57
		coarse sand		Sandstone, gray, and	
		grains . . . . .	2.5 40	layers of shale . .	5 62
		<b>C6-68-18badc.</b> Alt. 5,463.0 ft.		Sandstone, yellow . .	2 64
		Piney Creek Alluvium:		Shale, gray . . . . .	11 75
		Silt, sandy and		Sandstone, yellow . .	4 79
		gravelly, dusky-		Sand . . . . .	1 80
		yellowish-brown . .	2.5 2.5	Shale, gray . . . . .	2 82
		Louviers Alluvium:		Sand . . . . .	13 95
		Gravel, very fine to		Shale, light-gray . .	4 99
		medium, mostly very		Sand . . . . .	5 104
		fine, arkosic,		Shale, gray . . . . .	9 113
		subangular to		Shale, sandy, light-	
		rounded, and coarse		gray . . . . .	5 118
		to very coarse		Sandstone . . . . .	8 126
		sand; coarser		Shale, sandy, light-	
		gravel between 15		gray . . . . .	14 140
		and 17.5 feet . . .	17.5 20	Sand and sandstone . .	9 149
		Gravel, very fine to		Shale, light-gray . .	4 153
		medium, better		Sand . . . . .	6 159
		sorted than above,		Shale, light-gray . .	12 171
		arkosic, subangular		Sand and sandstone . .	9 180
		to well-rounded . .	6 26		

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C6-68-23addd. --Continued</b>		<b>C6-68-27ccag. --Continued</b>		<b>C6-69-2abbb. --Continued</b>	
Shale, light-gray. . . . .	8	Shale, gray. . . . .	10	Shale, blue. . . . .	7
Shale, sandy, light-gray. . . . .	6	Sand. . . . .	6	Shale, gray. . . . .	17
Sand. . . . .	9	<b>C6-68-31dbcc. Alt. 5,600 ft.</b>		Coal and sand. . . . .	6
Shale, light-gray. . . . .	6	Post-Piney Creek alluvium:	10	Shale, gray. . . . .	3
Shale, sandy, light-gray. . . . .	8	Soil, surface. . . . .	10	Dawson Formation (lower part):	
Sand and layers of gray shale. . . . .	7	Louviers Alluvium:	42	Sand (Middle conglomerate, 96 to 212 feet.) . . . . .	2
Shale, gray. . . . .	4	Sand and gravel. . . . .	104	Shale, gray. . . . .	20
Sand. . . . .	7	Dawson Formation (upper part):	110	Sand. . . . .	18
Shale, gray, brown and yellow. . . . .	62	Clay, sandy, gray. . . . .	62	Shale, gray. . . . .	11
Upper conglomerate:		Sandrock, brown. . . . .	188	Sand, fine. . . . .	6
Sand. . . . .	4	Clay, brown. . . . .	198	Coal and gray shale. . . . .	16
Shale, light-gray. . . . .	10	Shale, sandy, brown. . . . .	216	Sand and gray shale. . . . .	48
Sand. . . . .	4	Sand (water-bearing). . . . .	17	Shale, gray. . . . .	29
Shale, light-gray. . . . .	2	Clay, sticky, blue, and shale. . . . .	253	Shale, sandy, brown. . . . .	8
Sand and layers of gray shale. . . . .	10	Dawson Formation (lower part):		Lower conglomerate:	
Shale, light-gray. . . . .	3	Sand, blue (Middle conglomerate, 253 to 149 feet.) (water-bearing). . . . .	3	Sand, fine, and gray shale. . . . .	25
Sand and layers of sandstone. . . . .	16	Clay, blue. . . . .	256	Shale, gray. . . . .	129
Shale, yellow to gray. . . . .	17	Clay, brown. . . . .	280	Sand, fine, and gray shale. . . . .	10
Shale, sandy, yellow, and sand. . . . .	14	Sand (water-bearing). . . . .	290	Laramie Formation:	
Limestone. . . . .	1	Clay, blue. . . . .	300	Shale, gray. . . . .	11
Shale, gray. . . . .	23	Clay, blue. . . . .	310	<b>C6-69-2bbda. Alt. 5,550 ft.</b>	
Sand, yellow and sandstone. . . . .	6	Sand (water-bearing). . . . .	320	Piney Creek and Stocum Alluvium, undifferentiated:	
Coal. . . . .	1	Sand, fine (water-bearing). . . . .	330	Sand and gravel. . . . .	23
Shale, sandy, gray. . . . .	5	Clay, blue. . . . .	340	<b>C6-69-8abcc. Alt. 5,750 ft.</b>	
Shale, gray. . . . .	21	Sand (water-bearing). . . . .	349	Piney Creek Alluvium:	
<b>C6-68-24bccc. Alt. 6,128 ft.</b>		Sandstone and clay. . . . .	403	Soil, sandy. . . . .	5
Dawson Formation (upper part):		Lower conglomerate:		Sand and red clay. . . . .	24
Clay, gray and shale. . . . .	51	Sand (water-bearing). . . . .	433	Fountain Formation:	
Sandstone. . . . .	4	Sandstone, gray, and clay. . . . .	448	Sandstone, red. . . . .	928
Clay, bluish-gray; contains a layer of ironrock at 66 feet. . . . .	11	Clay. . . . .	458	<b>C6-69-8badd. Alt. 5,770 ft.</b>	
Clay, sandy; contains a layer of ironrock at 75 feet. . . . .	9	Sand (water-bearing). . . . .	458	Piney Creek Alluvium:	
Clay, white. . . . .	6	Clay, blue. . . . .	567	Silt, clayey, dry. . . . .	12
Sandstone, coarse. . . . .	16	Clay, tough, blue. . . . .	580	Sand, fine, silty, moist to wet. . . . .	16
Clay, gray. . . . .	5	Sandstone, hard. . . . .	590	Fountain Formation:	
Clay and coarse white sand. . . . .	56	Sand (water-bearing). . . . .	607	Sandstone at 28 feet. . . . .	
Clay, white. . . . .	13	Clay, tough, blue. . . . .	677	<b>C6-69-10ada. Alt. 5,470.2 ft.</b>	
Clay, sandy. . . . .	41	Sand (water-bearing). . . . .	685	Piney Creek Alluvium:	
Sandstone, soft. . . . .	3	Clay, blue and shale. . . . .	705	Loam, sandy. . . . .	5
Clay, sandy. . . . .	14	<b>C6-69-lacac. Alt. 5,410 ft.</b>		Clay, reddish-brown. . . . .	8
Sandstone, hard. . . . .	7	Piney Creek Alluvium:		Louviers Alluvium:	
Clay, white. . . . .	3	Topsoil. . . . .	2	Gravel, coarse sand, boulders, and streaks of clay. . . . .	28
Clay, yellow, red, blue, and blue-gray. . . . .	17	Louviers Alluvium:	14	Pierre Shale:	
Shale, hard, brown. . . . .	3	Gravel and boulders. . . . .	32	Shale, blue. . . . .	10
Clay, reddish-brown. . . . .	23	Dawson Formation (lower part):	40	<b>C6-69-11ada. Alt. 5,407.2 ft.</b>	
Upper conglomerate:		Shale, soft, blue. . . . .	78	Piney Creek Alluvium:	
Shale, grayish-black and alternate layers of water-bearing sandstone. . . . .	13	Shale, hard, brittle, blue. . . . .	124	Topsoil. . . . .	7
Shale, brown. . . . .	6	Shale, blue. . . . .	148	Louviers Alluvium:	
Shale and alternate layers of water-bearing sandstone. . . . .	13	Lower conglomerate:	152	Gravel. . . . .	41
Sand, soft, white. . . . .	34	Sand. . . . .		Dawson Formation:	
Shale, gray. . . . .	2	Shale, blue. . . . .		Shale at 48 feet. . . . .	
Sand, fine, yellow. . . . .	50	<b>C6-69-1bbbc. Alt. 5,538 ft.</b>		<b>C6-69-12aac. Alt. 5,400 ft.</b>	
<b>C6-68-27ccag. Alt. 5,700 ft.</b>		Eolian sand:		Post-Piney Creek alluvium:	
Piney Creek Alluvium and Dawson Formation, undifferentiated:		Topsoil. . . . .	5	Topsoil. . . . .	2
Sand and yellow clay. . . . .	57	Verdos Alluvium:	12	Louviers Alluvium:	
Dawson Formation (upper part):		Gravel. . . . .	56	Gravel, fine, dirty. . . . .	3
Shale, gray. . . . .	55	Dawson Formation (upper part):	36	Clay. . . . .	2
Sand [Upper conglomerate, 112 to 221 feet.] . . . . .	13	Clay, brown and yellow. . . . .	56	Gravel, fine. . . . .	5
Shale, gray. . . . .	24	Coal shale, greenish. . . . .	79	Clay. . . . .	2
Sand. . . . .	11	Rock. . . . .	61	Gravel, fine. . . . .	17
Shale, gray. . . . .	14	Shale, blue, and streaks of sand. . . . .	84	Clay. . . . .	6
Shale, red and yellow. . . . .	6	Shale. . . . .	138	<b>C6-69-12ada. Alt. 5,412.4 ft.</b>	
Sand, red. . . . .	13	Shale, contains streaks of sand. . . . .	138.5	Pill. . . . .	1
Shale, yellow and gray. . . . .	3	Shale. . . . .	140	Post-Piney Creek alluvium:	
Shale, pink. . . . .	5	Sand. . . . .	145	Topsoil. . . . .	2
Sand, red. . . . .	11	Sand. . . . .	149	Sand, coarse, and fine gravel. . . . .	1.5
Shale, gray. . . . .	4	Sand. . . . .	153	Louviers Alluvium:	
Sand, red. . . . .	5	Shale. . . . .	191	Sand, fine, to fine gravel, and clay (water-bearing). . . . .	5.5
Shale, gray and brown. . . . .	59	Shale, contains streaks of sand. . . . .	209	Sand, fine, and clay (water-bearing). . . . .	17
Sand. . . . .	15	Sand and rock. . . . .	216	Clay. . . . .	2
Shale, gray and brown. . . . .	44	Shale. . . . .	233	Gravel, fine to coarse, clean (water-bearing). . . . .	18
Shale, gray, and sand. . . . .	11	Lower conglomerate:		Clay. . . . .	8
Dawson Formation (lower part):		Sand. . . . .	237	Dawson Formation:	
Middle conglomerate:		Shale. . . . .	243	Shale, blue. . . . .	7
Sand and alternate layers of gray shale. . . . .	198	Sand and streaks of shale. . . . .	254	<b>C6-69-12bacc. Alt. 5,398.3 ft.</b>	
Lime. . . . .	2	Shale. . . . .	264	Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
Sand. . . . .	14	<b>C6-69-2abbb. Alt. 5,585 ft.</b>		Sand, and gravel (water). . . . .	47
		Younger loess:		Dawson Formation:	
		Topsoil. . . . .	2	Shale. . . . .	3
		Dawson Formation (upper part):			
		Clay, sandy, brown. . . . .	13		
		Sandstone. . . . .	18		
		Clay, gray. . . . .	49		
		Sand. . . . .	53		
		Clay, gray. . . . .	58		

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>CG-69-12dcd. Alt. 5,485 ft.</b>					
Slocum Alluvium:					
Topsoil. . . . .	1				
Clay, sandy, brown . . . . .	21				
Sand and gravel. . . . .	4				
Dawson Formation (lower part):					
Clay, sandy, brown . . . . .	3				
Clay, brown. . . . .	5				
Clay, sandy, brown, and layers of sand . . . . .	6				
Lower conglomerate:					
Boulders, sand, and gravel . . . . .	24				
Shale, brown . . . . .	7				
Shale, gray, and small layers of sand . . . . .	11				
Boulders . . . . .	3				
Shale, sandy, brown. . . . .	14				
Shale, gray. . . . .	102				
Coal . . . . .	1				
Shale, gray. . . . .	53				
Shale, sandy, gray . . . . .	6				
Shale, gray. . . . .	4				
Shale, brown . . . . .	4				
Sandstone, fine-grained, gray; contains layers of shale. . . . .					
Limestone and iron pyrite; contains layers of gray shale . . . . .	4				
Laramie Formation:					
Shale, blue. . . . .	12				
Shale, gray. . . . .	6				
Shale, blue. . . . .	11				
Shale, gray. . . . .	23				
Shale, brown. . . . .	5				
Shale, gray. . . . .	122				
Shale, blue. . . . .	23				
Shale, gray. . . . .	9				
Shale, brown. . . . .	5				
Shale, gray. . . . .	9				
Limestone, sandy; contains layers of gray shale . . . . .					
Shale, dark-gray . . . . .	28				
Sand, fine, gray . . . . .	3				
Shale, dark-gray . . . . .	13				
Shale, sandy, gray . . . . .	11				
Shale, dark-gray . . . . .	30				
Shale, sandy, gray . . . . .	5				
Shale, gray. . . . .	15				
<b>CG-69-13dadd. Alt. 5,535.3 ft.</b>					
Slocum Alluvium:					
Topsoil, sandy . . . . .	4				
Gravel, fine to coarse . . . . .	6				
Gravel, coarse . . . . .	5				
Clay . . . . .	2				
Gravel, very fine to medium, arkosic, angular to rounded, poorly sorted, and angular to sub-angular sand . . . . .					
Gravel, fine to coarse . . . . .	5				
Gravel and clay. . . . .	5				
Sand and very fine gravel: poorly sorted, angular to subangular, arkosic . . . . .					
Gravel and clay. . . . .	2				
Gravel, fine to medium . . . . .	4				
Sand, coarse, and fine gravel. . . . .	3				
Gravel, fine to very coarse . . . . .	3				
Gravel, medium, and clay . . . . .	12				
Dawson Formation:					
Shale, weathered . . . . .	2				
Shale. . . . .	5				
<b>CG-69-21ccgc. Alt. 5,498.6 ft.</b>					
Pierre Shale:					
Topsoil. . . . .	.5				
Shale. . . . .	14.5				
<b>CG-69-21ccdd. Alt. 5,470.3 ft.</b>					
Piney Creek Alluvium:					
Topsoil. . . . .	3.5				
Louviers Alluvium:					
Soil and coarse gravel . . . . .	3.5				
Sand, fine, and clay . . . . .	4				
Gravel, coarse . . . . .	6				
Sand and clay. . . . .	3				
Gravel . . . . .	4				
Sand . . . . .	3				
Pierre Shale:					
Shale, weathered . . . . .	7				
Shale, blue. . . . .	3				
<b>CG-69-23ccdd. Alt. 5,455.9 ft.</b>					
Fill, cinders . . . . .					
	4				
<b>CG-69-23ccdd. --Continued</b>					
Louviers Alluvium:					
Gravel, very fine to coarse, poorly sorted, subangular to well-rounded, arkosic, sandy, silty. . . . .	7				
Sand, medium to very coarse, fairly well-sorted, arkosic; contains about 20 percent poorly sorted gravel. . . . .					
Gravel, coarse . . . . .	10				
Boulders and cobbles . . . . .	2				
Pierre Shale:					
Shale, weathered . . . . .	5				
Shale, blue. . . . .	3				
<b>CG-69-23ccdd. Alt. 5,450.5 ft.</b>					
Post-Piney Creek alluvium:					
Topsoil, sandy . . . . .	4				
Sand and gravel. . . . .	3				
Louviers Alluvium:					
Gravel, coarse, and sand . . . . .	6				
Cobbles and boulders . . . . .	1				
Sand and fine gravel; contains some cobbles. . . . .					
Cobbles and boulders . . . . .	7				
Gravel and sand; contains some cobbles. . . . .	1				
Boulders . . . . .	4				
Gravel, fine to medium . . . . .	1				
Boulders . . . . .	.5				
Gravel, fine to medium . . . . .	1				
Pierre Shale:					
Shale, weathered . . . . .	2.5				
Shale. . . . .	3				
<b>CG-69-23dadd. Alt. 5,479.5 ft.</b>					
Louviers and Slocum Alluvium, undifferentiated:					
Cobbles, boulders, and gravel . . . . .	39				
<b>CG-69-23dbbb. Alt. 5,446.5 ft.</b>					
Piney Creek Alluvium:					
Topsoil. . . . .	3.5				
Louviers Alluvium:					
Sand . . . . .	.5				
Sand and gravel. . . . .	16				
Sand, fine . . . . .	5				
Sand, gravel, and large cobbles. . . . .	10				
<b>CG-69-23dbcc. Alt. 5,449.5 ft.</b>					
Piney Creek Alluvium:					
Topsoil. . . . .	2				
Louviers Alluvium:					
Sand, fine, and gravel . . . . .	8				
Gravel, coarse, and cobbles. . . . .	6				
Sand, fine and gravel. . . . .	12				
Sand, gravel, and cobbles. . . . .	5				
Pierre Shale:					
Shale. . . . .	4.8				
<b>CG-69-23dcdc. Alt. 5,448.0 ft.</b>					
Post-Piney Creek alluvium:					
Boulders . . . . .	2				
Broadway Alluvium:					
Sand and fine gravel . . . . .	3				
Gravel, fine to medium . . . . .	18				
Gravel, coarse, and boulders . . . . .	8				
Pierre Shale:					
Shale, blue. . . . .	9				
<b>CG-69-24abdd. Alt. 5,550 ft.</b>					
Eolian sand:					
Topsoil, sandy, and clay . . . . .	12				
Slocum Alluvium:					
Sand and gravel. . . . .	26				
Older loess:					
Clay, brown. . . . .	16				
Dawson Formation (lower part):					
Shale, blue. . . . .	122				
Sand, coarse . . . . .	6				
Shale, blue. . . . .	28				
<b>CG-69-24acab2. Alt. 5,499 ft.</b>					
Eolian sand:					
Soil, sandy, brown . . . . .	2				
Slocum Alluvium:					
Clay, sandy and gravelly, soft . . . . .	10				
<b>CG-69-24acab2. --Continued</b>					
Sand, coarse, and very fine gravel: very calcareous, silty, very pale-orange . . . . .					
Gravel, medium to very coarse, and cobbles: loose, arkosic, sub-rounded to well-rounded. . . . .	14				
Dawson Formation (lower part):					
Lower conglomerate:					
Sand, very fine to very coarse, sub-angular to sub-rounded, silty, very micaceous, compact, moderately calcareous, grayish-orange, loose. . . . .					
Laramie Formation:					
Shale, micaceous, soft, noncalcareous, greenish-gray, and some fine sand . . . . .					
Shale, silty, non-calcareous, medium-gray . . . . .	15				
Shale, silty, micaceous, soft, light-greenish-gray, and about 50 percent very fine to fine, well rounded sand. . . . .	15				
Limestone, very sandy, very hard, light-olive and pinkish-gray . . . . .	1				
Shale, silty, slightly calcareous, light-gray and grayish-blue, small amount of coal and about 5 percent fine to medium sand. . . . .	29				
Shale, silty, slightly calcareous, medium-light-gray, and fine, well rounded sand . . . . .	15				
Shale, silty, soft, micaceous, noncalcareous, medium-gray and light-olive gray . . . . .	10				
Shale, soft, light-olive-gray, and fragments of coal. . . . .	15				
Shale, silty and slightly sandy, non-calcareous, light-gray . . . . .	15				
Shale, silty, soft, light-olive-gray, and brittle, shiny, black coal . . . . .	15				
Shale, silty, soft, greenish-gray, coal, and about 10 percent very fine to medium, arkosic sand . . . . .	16				
Limestone, very sandy, very hard, dark-gray . . . . .	2				
Shale, silty, sandy, soft, light-olive-gray, in part calcareous. . . . .	27				
Shale, silty, sandy, slightly calcareous, medium-light-gray, and coal . . . . .	15				
Shale, silty, soft, noncalcareous, medium-gray, greenish-gray and light-olive-gray . . . . .	45				
Shale, silty, noncalcareous, soft, medium-light-gray, and sand . . . . .	15				
Shale, silty, soft, micaceous, medium-light-gray and light-olive-gray . . . . .	60				
Shale, carbonaceous, soft, medium-dark-gray, and lustrous black coal . . . . .	15				
Shale, silty, soft, light-olive-gray . . . . .	15				
Sand, fine to medium, subangular to sub-rounded, and about 10 percent medium-light-gray noncalcareous shale. . . . .	6				

Table J.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C6-69-24acab2.</b> --Continued		<b>C6-69-24dabd.</b> Alt. 5,588.0 ft.		<b>C6-71-12adcd.</b> Alt. 7,980 ft.	
Limestone, very sandy		Eolian sand:		Precambrian (granite):	
very hard, white. . . . . 1	442	Sand . . . . . 7	7	Overburden . . . . . 6	6
Sand, fine to medium,		Dawson Formation:		Granite, decomposed. . . 12	18
well-rounded. . . . . 2	444	Shale. . . . . 10	17	Granite, red and gray. 82	100
Limestone, very sandy,		<b>C6-69-25babb.</b> Alt. 5,535.0 ft.		<b>C7-65-4ddad.</b> Alt. 6,532 ft.	
hard, medium-light-		Slocum Alluvium:		Dawson Formation (upper part):	
gray. . . . . 6	450	Sand, silty, and fine		Sand and gravel. . . . . 39	39
sand, very fine to		gravel. . . . . 6	6	Shale, sandy, gray. . . 51	90
fine, and about 40		Gravel, fine to medium,		Sand and gravel. . . . . 30	120
percent medium-light-		some silt and clay. . . 11	17	Shale, sandy. . . . . 10	130
gray silty and		Sand and fine gravel:		Sand and gravel. . . . . 5	135
clayey shale. . . . . 15	465	fairly clean. . . . . 8	25	Shale, sandy, gray. . . 55	190
Shale, silty, slightly		Sand, fine to coarse:		<b>C7-65-8cdddb.</b> Alt. 6,540 ft.	
calcareous, slightly		contains a small		Dawson Formation (upper part):	
sandy, medium-light-		amount of gravel. . . 7	32	Topsoil. . . . . 3	3
gray. . . . . 15	480	Laramie Formation:		Sand and clay binders. . 31	34
Shale, clay, soft,		Shale, weathered:		Clay, gray. . . . . 101	135
moderately calcareous,		becomes hard at 37		Sand. . . . . 22	157
greenish-gray. . . . . 15	495	feet. . . . . 10	42	Clay, gray. . . . . 15	172
Shale, noncalcareous,		<b>C6-69-34addd.</b> Alt. 5,493.0 ft.		Sand. . . . . 4	176
50 percent silty, 50		Post-Piney Creek alluvium:		Clay, gray. . . . . 14	190
percent clayey,		Topsoil, fine, sandy. . 9	9	Sand. . . . . 33	223
medium-light-gray. . . 15	510	Louviers Alluvium:		Shale, blue. . . . . 9	232
Sandstone, very fine,		Gravel, very coarse. . 22	31	<b>C7-65-9bccc.</b> Alt. 6,595 ft.	
hard, fine sand, and		Lykins Formation:		Dawson Formation (upper part):	
50 percent medium-		Shale at 31 feet		Topsoil. . . . . 3	3
light-gray very		<b>C6-70-4bbdb.</b> Alt. 7,540 ft.		Sand, hard, layers. . . 1	4
calcareous silty		Precambrian (granite):		Clay, sandy. . . . . 10	14
shale. . . . . 15	525	Quartz and decomposed		Clay. . . . . 34	48
Sandstone, very fine to		granite. . . . . 64	64	Sand, hard, and layers	
fine sand, and		<b>C6-70-4dadb.</b> Alt. 7,220 ft.		of clay. . . . . 116	264
about 20 percent silty		Piney Creek Alluvium:		Sand. . . . . 141	305
and clayey shale. . . . 18	543	Sand and gravel. . . . 40	40	Clay. . . . . 2	307
Limestone, very sandy,		Precambrian:		<b>C7-65-9cbdb.</b> Alt. 6,600 ft.	
hard, white. . . . . 3	546	Sandstone (weathered		Dawson Formation (upper part):	
Sandstone, very fine to		crystalline). . . . . 10	50	Topsoil, sandy. . . . . 3	3
very coarse, and sub-		<b>C6-70-3dddb.</b> Alt. 7,200 ft.		Sand, hard packed. . . 15	18
rounded to rounded		Precambrian (schist and		Sand. . . . . 11	29
sand; contains		granite):		Clay, occasional	
pyrite and has much		Clay, black and red. . . 8	8	layer of sand. . . . . 253	282
iron-staining; about		Schist. . . . . 16	24	Sand. . . . . 34	116
20 percent is cal-		Granite, gray, quartz,		Clay. . . . . 4	320
careous clay shale. . . 9	555	and soft streaks. . . 52	76	<b>C7-65-14cccc.</b> Alt. 6,550 ft.	
Shale, silty, calcareous,		Granite, black. . . . . 26	102	Dawson Formation (upper part):	
medium-gray. . . . . 15	570	<b>C6-70-8dbbd.</b> Alt. 7,630 ft.		Topsoil, sandy. . . . . 3	3
Sandstone, very fine,		Piney Creek Alluvium:		Clay, sandy. . . . . 10	13
silty, calcareous,		Overburden. . . . . 8	8	Sandy. . . . . 17	30
medium-light-gray. . . 15	585	Precambrian:		Clay. . . . . 15	45
Shale, silty, medium-		Sand and decomposed		Sand and gravel. . . . . 21	66
light-gray, noncal-		boulders. . . . . 20	28	Clay, gray. . . . . 44	110
careous, and about		granite. . . . . 10	38	Sand. . . . . 18	128
30 percent very		<b>C6-70-11abdd.</b> Alt. 7,040 ft.		Clay. . . . . 89	217
fine sand. . . . . 10	615	Precambrian (granite):		Sand. . . . . 15	152
Shale, silty, soft,		Granite, decomposed. . 56	56	Clay, green. . . . . 8	260
noncalcareous, medium-		Granite, gray. . . . . 15	71	Sand. . . . . 12	292
light-gray and medium-		Granite, decomposed. . 7	78	Clay, green. . . . . 6	298
gray, and some clay		Granite, gray. . . . . 19	97	<b>C7-65-15dccc.</b> Alt. 6,600 ft.	
shale. . . . . 60	675	Granite, decomposed. . 4	101	Dawson Formation (upper part):	
Shale, clay, noncalcar-		Granite, gray. . . . . 27	128	Shale. . . . . 15	15
eous, dark-greenish-		Granite, decomposed. . 40	168	Sand and gravel. . . . . 20	35
gray and medium-light-		Granite, gray; contains		Shale. . . . . 20	55
gray. . . . . 45	720	soft streaks. . . . . 20	188	Sand, gravel and	
Shale, silty, noncal-		Granite, rose. . . . . 13	201	sandy shale. . . . . 20	75
careous, soft, medium-		Granite, gray. . . . . 59	260	Shale. . . . . 5	80
light-gray and dark-		Granite, rose and		Sand and gravel. . . . . 20	100
greenish-gray. . . . . 10	750	quartz. . . . . 11	177	Shale. . . . . 10	110
Sandstone, very fine,		Granite, gray. . . . . 24	201	Sand, gravel, and sandy	
quartzose, salt and		<b>C6-70-11cbdd.</b> Alt. 6,680 ft.		shale. . . . . 25	135
pepper texture, silty		Piney Creek Alluvium:		Shale. . . . . 10	145
and noncalcareous,		Boulders and black		Shale, sandy. . . . . 8	153
olive-gray, and		dirt. . . . . 9	9	Shale. . . . . 12	165
light-olive-gray,		Precambrian:		<b>C7-65-16bacc.</b> Alt. 6,600 ft.	
silty and clayey		Granite, blue. . . . . 95	104	Dawson Formation (upper part):	
shale. . . . . 15	765	Granite, gray. . . . . 30	134	Clay. . . . . 12	12
Shale, silty, light-		Granite, black. . . . . 32	166	Sand, hard. . . . . 12	24
olive-gray, and some		Granite, rose and		Clay, green. . . . . 14	38
very fine sand. . . . . 15	780	quartz. . . . . 11	177	Sand and gravel. . . . . 7	45
Shale, silty, greenish-		Granite, gray. . . . . 24	201	Clay and layers of	
gray, noncalcareous,		<b>C6-70-25bdcd.</b> Alt. 7,300 ft.		sand. . . . . 195	240
and about 50 percent		Dirt. . . . . 6	6	Sand. . . . . 42	282
shiny to sooty brittle		Clay and loose rock. . 8	14	Clay. . . . . 16	298
black coal. . . . . 15	795	Precambrian:		<b>C7-65-16daad.</b> Alt. 6,599 ft.	
Coal, shiny, brittle,		Granite, decomposed. . 6	20	Dawson Formation (upper part):	
black, and some silty		Granite, firm. . . . . 12	32	Shale, sandy. . . . . 15	15
fine quartz sand. . . 15	810	Granite, intermediate		Sand and gravel. . . . . 10	25
<b>B sandstone:</b>		layers of firm and		Shale. . . . . 34	59
Sandstone, very fine to		brittle (yields		Sand, gravel, and	
medium, moderately		water at 52 feet). . 20	52	sandy shale. . . . . 41	100
silty, quartz, sub-		Granite, hard, red to		Shale. . . . . 10	110
rounded to subangu-		gray. . . . . 8	60	Sand, gravel, sandy	
lar, very-light-		Granite, intermediate		shale, and shale. . . 55	165
gray, pyrite, and a		layers of hard and		Shale. . . . . 15	180
little silty shale;		brittle (water). . . 14	74	<b>C7-65-22dadd.</b> Alt. 6,586 ft.	
sandstone has salt		Granite, hard, gray. . 6	80	Dawson Formation (upper part):	
and pepper texture. . 10	840	Granite, brittle,		Sand and gravel. . . . . 24	24
Shale, silty, light-		(water-bearing). . . 3	83		
gray, and very fine-		Granite, gray, reddish	8		
grained sandstone. . . 10	870				
Sandstone, fine to medium,					
noncalcareous, light-					
gray and very-light-					
gray, quartzose, and					
medium-gray shale;					
sandstone has salt and					
pepper appearance. . 45	915				

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C7-65-22dadd. --Continued</b>		<b>C7-65-10dbbb. --Continued</b>		<b>C7-66-10cdcc. Alt. 5,961.9 ft.</b>	
Shale . . . . .	6	Clay, blue . . . . .	1	Piney Creek Alluvium:	
Sand, gravel, and		Sand and gravel, blue-		Topsoil . . . . .	8
sandy shale . . . . .	65	marbled, impervious		Broadway Alluvium:	
shale . . . . .	15	(low water yield) . . .	17	Sand and fine to	
Sand, gravel, and		Sand, coarse, and		medium gravel . . . . .	17
sandy shale . . . . .	5	gravel, iron stained		Louviers Alluvium:	
shale . . . . .	20	(water-bearing) . . . .	16	Gravel and medium to	
		Dawson Formation (upper part):		coarse sand . . . . .	31
<b>C7-65-27daga. Alt. 6,632 ft.</b>		Clay, weathered, blue .	2	Dawson Formation:	
Dawson Formation (upper part):		Shale, hard, at 66 feet		Shale . . . . .	2
Sand and gravel . . . . .	17				
Shale . . . . .	20	<b>C7-65-14addd. Alt. 6,642 ft.</b>		<b>C7-66-10dbbb. Alt. 5,952.5 ft.</b>	
Sand, gravel, sandy		Dawson Formation (upper part):		Piney Creek Alluvium:	
shale, and streaks of		Sand and gravel . . . . .	20	Topsoil . . . . .	4
sandstone . . . . .	56	Shale . . . . .	9	Broadway and Louviers Alluvium,	
Shale . . . . .	27	Sand and gravel . . . . .	16	undifferentiated:	
		Shale . . . . .	16	Clay and sand . . . . .	14
<b>C7-65-29agcb. Alt. 6,445 ft.</b>		Sand, gravel, sandy		Gravel, medium to	
Dawson Formation (upper part):		shale, and streaks		coarse . . . . .	40
Topsoil . . . . .	1	of sandstone . . . . .	19	Dawson Formation:	
Sand . . . . .	22	Shale . . . . .	15	Shale . . . . .	1
Clay . . . . .	5	Sand, gravel, and sandy			
Sand and layers of clay	26	shale . . . . .	18	<b>C7-66-15badb. Alt. 5,957.2 ft.</b>	
Clay, gray . . . . .	6	Shale . . . . .	17	Piney Creek Alluvium:	
Clay, sandy . . . . .	16			Topsoil . . . . .	8
Sand . . . . .	18	<b>C7-66-3abcb. Alt. 5,925.6 ft.</b>		Broadway and Louviers Alluvium,	
Clay, gray . . . . .	16	Piney Creek Alluvium:		undifferentiated:	
Sand . . . . .	16	Sand and clay . . . . .	22	Gravel and sand . . . . .	22
Clay, yellow . . . . .	9	Broadway Alluvium:		Louviers Alluvium:	
Sand . . . . .	20	Sand and gravel . . . . .	23	Gravel, medium to	
Shale, gray . . . . .	9	Louviers Alluvium:		coarse . . . . .	28
		Clay, sandy, blue . . . .	5	Dawson Formation:	
<b>C7-65-29bhd2. Alt. 6,315 ft.</b>		Gravel, coarse . . . . .	10	Shale, blue . . . . .	3
Dawson Formation (upper part):		Clay . . . . .	4		
Topsoil . . . . .	6	Gravel, coarse . . . . .	10	<b>C7-66-17aaga. Alt. 6,179 ft.</b>	
Clay . . . . .	2	Dawson Formation:		Dawson Formation (upper part):	
Sand, fine . . . . .	2	Shale . . . . .	1	Sand and gravel . . . . .	10
Sand . . . . .	5			Shale . . . . .	60
Gravel . . . . .	1	<b>C7-66-3baaa. Alt. 5,915.8 ft.</b>		Sand, gravel, and sandy	
Clay . . . . .	2	Piney Creek Alluvium:		shale . . . . .	27
Gravel . . . . .	5	Topsoil, dark . . . . .	12	Shale . . . . .	18
Clay . . . . .	22	Sand and clay . . . . .	10		
Clay and gravel . . . . .	8	Broadway Alluvium:		<b>C7-66-19aaga. Alt. 6,275 ft.</b>	
Clay and gravel, tight.	5	Sand and fine gravel . .	23	Dawson Formation (upper part):	
Shale at 60 feet		Louviers Alluvium:		Topsoil, light-textured,	
<b>C7-65-10babb. Alt. 6,250 ft.</b>		Gravel, medium to		light-colored . . . . .	3
Piney Creek Alluvium:		coarse . . . . .	31	Clay, sandy, white . . . .	67
Topsoil . . . . .	2	Dawson Formation:		Shale, blue and gray . . .	100
Dawson Formation (upper part):		Shale, blue . . . . .	4	Clay, gray and white . . .	40
Clay and sandstone . . .	66			Sandstone, white . . . . .	61
Gravel (water-bearing) .	2	<b>C7-66-1bddd. Alt. 5,923.3 ft.</b>			
Clay . . . . .	20	Piney Creek Alluvium:		<b>C7-66-20bacd. Alt. 6,223 ft.</b>	
Gravel and sand (water-		Clay . . . . .	48	Dawson Formation (upper part):	
bearing) . . . . .	20	Louviers Alluvium:		Shale, sandy . . . . .	10
Shale . . . . .	10	Gravel . . . . .	17	Sand and gravel . . . . .	20
		Dawson Formation:		Shale . . . . .	45
<b>C7-65-10daga. Alt. 6,300 ft.</b>		Shale . . . . .	5	Sand, gravel, and	
Piney Creek Alluvium:				sandy shale . . . . .	20
Topsoil . . . . .	1	<b>C7-66-1bdcc. Alt. 5,919.8 ft.</b>		sandstone, blue . . . . .	20
Clay . . . . .	4	Piney Creek Alluvium:		Shale, sandy . . . . .	10
Broadway Alluvium:		Clay . . . . .	38	Shale, blue . . . . .	15
Sand . . . . .	15	Louviers Alluvium:		Shale, sandy . . . . .	10
Sand and gravel . . . . .	5	Gravel, coarse . . . . .	23	Sandstone, blue . . . . .	10
Gravel . . . . .	3	Dawson Formation:		Shale, sandy . . . . .	22
Louviers Alluvium:		Shale at 61 feet		Shale . . . . .	172
Clay . . . . .	1			Shale . . . . .	180
Sand . . . . .	7	<b>C7-66-4dabd. Alt. 5,957.2 ft.</b>			
Sand and gravel . . . . .	9	Piney Creek Alluvium:		<b>C7-66-22baag. Alt. 6,007.8 ft.</b>	
Gravel . . . . .	12	Soil . . . . .	6	Piney Creek Alluvium:	
Dawson Formation (upper part):		Louviers Alluvium:		Soil, sandy, loose . . . .	3
Gravel, cemented . . . .	10	Sand and gravel . . . . .	18	Clay, sandy . . . . .	2
Shale . . . . .	4	Sand and clay . . . . .	12	Clay, sandy, black . . . .	6
		Dawson Formation (upper part):		Broadway Alluvium:	
<b>C7-65-10daga. Alt. 6,288 ft.</b>		Sandstone . . . . .	24	Sand, fine . . . . .	7
Piney Creek Alluvium:				Sand, medium: contains	
Topsoil and clay . . . .	4	<b>C7-66-5daab. Alt. 6,073 ft.</b>		a trace of gravel . . . .	13
Clay and sand . . . . .	4	Dawson Formation (upper part):		Louviers Alluvium:	
Broadway and Louviers Alluvium,		Sand, gravel, and		Sand, medium, coarse	
undifferentiated:		sandstone . . . . .	34	gravel, and a few	
Gravel and sand . . . . .	2	Shale . . . . .	68	boulders . . . . .	12
Gravel . . . . .	2	Sand, gravel, and		Clay, gray . . . . .	6
Gravel, coarse . . . . .	3	shale . . . . .	43	Sand, coarse, gravel,	
Sand . . . . .	15	Shale . . . . .	20	and a few boulders . . .	7.5
Gravel . . . . .	13			Clay, brown . . . . .	1.5
Gravel and clay . . . . .	5	<b>C7-66-8dada. Alt. 6,143 ft.</b>			
Dawson Formation (upper part):		Dawson Formation (upper part):		<b>C7-66-22cdcc. Alt. 6,030.3 ft.</b>	
Clay . . . . .	2	Shale, sandy, and		Post-Piney Creek alluvium:	
Shale . . . . .	20	gravel . . . . .	45	Topsoil . . . . .	4
		Shale, sandy, sand, and		Broadway Alluvium:	
<b>C7-65-10dbbb. Alt. 5,260 ft.</b>		gravel . . . . .	40	Gravel and sand . . . . .	7
Piney Creek Alluvium:		Shale . . . . .	65	Louviers Alluvium:	
Loss, heavy, black . . .	4			Clay . . . . .	4
Broadway Alluvium:		<b>C7-66-10agca. Alt. 5,946.4 ft.</b>		Gravel, dirty, and sand	
Sand, fine (water-		Piney Creek Alluvium:		Gravel and sand . . . . .	21
bearing) . . . . .	8	Clay . . . . .	7	Gravel, sand, and thin	
Louviers Alluvium:		Broadway and Louviers Alluvium,		clay . . . . .	6
Clay, blue . . . . .	1.5	undifferentiated:		Clay . . . . .	8
Sand and clay (water-		Gravel, sandy . . . . .	43	Gravel and some rocks	
bearing) . . . . .	8.5	Louviers Alluvium:		Dawson Formation:	
Clay, blue . . . . .	1	Gravel, sandy, and		Shale . . . . .	3
Gravel, coarse (water-		some clay . . . . .	15		
bearing) . . . . .	7	Dawson Formation:		<b>C7-66-27cdad. Alt. 6,054.1 ft.</b>	
		Shale at 65 feet		Piney Creek Alluvium:	
				Top . . . . .	3

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C7-66-27cdad.</b> ---Continued		<b>C7-66-12ddbg.</b> Alt. 6,120 ft.		<b>C7-66-14ddcg.</b> ---Continued	
Broadway Alluvium:		Dawson Formation (upper part):		Gravel, fine to	
Gravel and sand	11	Sand and clay	115	very coarse,	
Louviers Alluvium:		Sandrock, white	105	arkosic, subangular	
Clay	4			to subrounded, and	
Clay, dirty sand, and				fine to very coarse	
gravel	3			sand	11.5 14
Clay	16	<b>C7-66-13dbbb.</b> Alt. 6,189 ft.		Louviers Alluvium:	
Gravel and sand	14	Dawson Formation (upper part):		Sand, medium to very	
Clay and gravel	5	Gravel, sand, boulders,	25	coarse, arkosic,	
Gravel and clean sand	10	and sandy shale	10	subangular to sub-	
Dawson Formation (upper part):		Shale, sandy	65	rounded, silty, very	
Shale and sand	4	Shale, blue	123	micaceous, and some	
Shale	5	Gravel, sand, and	28	medium-light-gray	
		shale	153	silt; contains	
		Gravel, hard, and sand	160	biocite	1.5 17.5
		Shale, blue	200	Gravel, very fine, sub-	
<b>C7-66-27daba.</b> Alt. 6,122.2 ft.				angular to subrounded,	
Dawson Formation (upper part):		<b>C7-66-14dbcd.</b> Alt. 6,077.6 ft.		arkosic, coarse to	
Topsoil	1	Piney Creek Alluvium:		very coarse sand;	
Sandstone	9	Topsoil	3	and dark-yellowish-	
Shale, gray	2	Clay	13	brown noncalcareous	
Sandstone, soft	2	Broadway Alluvium:		silt	13.5 31
Shale, gray, and		Gravel	27	Silt, sandy, very mica-	
sandstone	10	Louviers Alluvium:		ceous, noncalcareous,	
Shale, sandy, gray	5	Gravel and brown sand	32	light-olive-gray;	
Shale, gray	21	Gravel	40	contains fine sand	
Shale, brown and gray	11	Gravel, fine sand,	50	and a bed of coarse	
Sand	6	and clay	9	gravel at 16 feet	11.5 42.5
Shale, blue	3	Gravel and rocks	63	Sand, very fine to very	
Shale, sandy, gray, and		Dawson Formation (upper part):		coarse, in part silty,	
sandstone	2	Sandstone	66	very micaceous, non-	
Sand and coal	4			calcareous, light-	
Shale, gray	2			olive-gray, and a	
Sandstone, coarse	6	<b>C7-66-14dbcd.</b> Alt. 6,084.5 ft.		little arkosic very	
Coal	1	Piney Creek Alluvium:		fine gravel	11.5 54
Sandstone	5	Soil, black	5	Cobbles	2 56
Sandstone and sandy		Clay, sandy	8	Dawson Formation (upper part):	
shale	5	Broadway and Louviers Alluvium,		Sandstone, medium-	
Sand and sandstone,		undifferentiated:		very coarse-grained,	
coarse	17	Gravel, medium to	44	arkosic, and moderate-	
Shale, sandy, gray	4	coarse	52	yellow noncalcareous	
Sandstone, coarse	4	Dawson Formation (upper part):		silt; sand and very	
Shale, sandy, and soft		Clay and sandstone	55	fine gravel grains	
sandstone	14			are angular to sub-	
Shale, green and gray	27	<b>C7-66-14ddcd.</b> Alt. 6,087.4 ft.		angular; contains	
Sandstone	6	Piney Creek Alluvium:		montmorillonite	2 58
Shale, brown	2	Sand, silt, and fine	2.5	<b>C7-66-14ddcd.</b> Alt. 6,081.2 ft.	
Sandstone, soft	8	gravel	2.5	Piney Creek Alluvium:	
Shale, gray, and sand-		Broadway Alluvium:		Silt, very sandy, non-	
stone	17	Gravel, very fine to		calcareous, dark-	
Sandstone	26	fine, arkosic, sub-		yellowish-brown and	
Sand, fine, and gray	10	rounded to rounded,		pale-yellowish-	
Shale	15	and about 30 per-		brown; contains	
Sand	4	cent coarse to		poorly sorted sand	
Shale	1	very coarse angular	7.5 10	and a little very	
Shale, brown	16	to subangular sand		fine gravel	2.5 2.5
Sand	2	Louviers Alluvium:		Silt, clayey, slightly	
Shale, gray	2	Silt, sandy, noncal-		sandy, very micaceous,	
		careous, greenish-		noncalcareous, coal-	
<b>C7-66-10bhhh.</b> Alt. 6,496 ft.		yellow	3 13	black when wet, dark-	
Dawson Formation (upper part):		Gravel, very fine to		yellowish-brown	4.5 7
Shale, sandy	8	medium, subangular to		Broadway Alluvium:	
Shale	47	rounded, arkosic, and		Sand, fine to medium,	
Sand, gravel, sandy		about 30 percent me-		arkosic, angular to	
shale, and streaks of		dius to very coarse		subangular, loose,	
shale	75	sand; contains		micaceous, silty,	
Shale	11	rhylolite fragments	14.5 27.5	pale-yellowish-brown	4.5 11.5
Sand, gravel, sandy		Sand, medium to very		Gravel, very fine, sub-	
shale, and streaks		coarse, angular to		angular to rounded,	
of shale	39	subrounded, arkosic,		fairly well-sorted,	
Shale, sandy, blue	20	silty, and about 30		arkosic, and about	
Sand and gravel	10	percent very fine	10 37.5	20 percent coarse	
Shale, sandy, blue, and		gravel		sand	21 32.5
clay	10	Sand, fine to coarse,		Louviers Alluvium:	
		arkosic, subangular		Sand, medium, subangular	
<b>C7-66-10cbhh.</b> Alt. 6,477 ft.		to rounded, very		to subrounded, arkosic,	
Dawson Formation (upper part):		silty, pale-yellowish-		micaceous, very silty,	
Sand and gravel	25	brown, and about 10		pale-yellowish-brown	5 37.5
Shale, gray	65	percent very fine		Sand, very fine to very	
Sandstone	5	to fine gravel;		coarse, angular to	
Shale, gray	35	contains thin bed		subangular, beds of	
Sand and gravel	53	of coarse gravel		pale-yellowish-brown	
Shale, sandy, blue	42	at 40 feet	5.5 43	silt, and very fine	
		Sand, poorly sorted,		to fine subangular	
<b>C7-66-11ccgg.</b> Alt. 6,496 ft.		arkosic, subangular		to rounded gravel;	
Dawson Formation (upper part):		to rounded, clean,		contains coarse	
Shale, sandy	75	and about 25 percent		angular gravel at	
Sand and gravel	25	very fine to fine		38, 40, and 41 feet	15 52.5
Shale, sandy, gray	35	gravel	20 63	Dawson Formation (upper part):	
Shale, blue	20	Dawson Formation (upper part):		Sandstone, coarse-	
		Sandstone, fine to		grained, noncalcareous,	
<b>C7-66-12dbdd.</b> Alt. 6,317 ft.		medium, noncalcareous,		arkosic; grains are	
Dawson Formation (upper part):		speckled, very mica-		angular to subrounded;	
Sand and gravel	12	ceous, light-gray;		contains montmoril-	
Shale	23	contains montmoril-		lonite and abundant	
Sand, gravel, sandy		lonite and abundant		dark mica	1 66
shale, and streaks				<b>C7-66-14dddg.</b> Alt. 6,100 ft.	
of shale	48			Piney Creek Alluvium:	
Sand and gravel	12			Clay, sandy	15 15
Shale, sandy, blue	15	<b>C7-66-14ddcg.</b> Alt. 6,079.6 ft.		Broadway and Louviers Alluvium,	
Sand, gravel, and blue		Broadway Alluvium:		undifferentiated:	
sandy shale	20	Gravel, very fine to		Sand and medium gravel	25 40
Shale	10	medium, arkosic, sub-		Dawson Formation:	
Shale, sandy	27	rounded to rounded,		Shale, blue	2 42
Shale	13	and about 40 percent			
		very fine to very			
		coarse sand	2.5 2.5		

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C7-66-14dddd. Alt. 6,100 ft.</b>		<b>C7-67-14bcd. --Continued</b>		<b>C7-67-19bbbc. --Continued</b>	
Piney Creek Alluvium:		Shale, gray. . . . .	4 1,761	Soil. . . . .	4
Topsoil. . . . .	4	Sand and gray shale. . . . .	14 1,795	Piney Creek and Broadway Alluvium, undifferentiated:	
Broadway and Louviers Alluvium, undifferentiated:		<b>C7-67-4baad. Alt. 6,351 ft.</b>		Clay and gravel. . . . .	14
Sand, gravel, and clay. . . . .	11 15	Dawson Formation (upper part):		Louviers Alluvium:	
Dawson Formation (upper part):		Sand and gravel. . . . .	10 30	Clay, white. . . . .	20 18
Shale, blue. . . . .	195 430	Shale. . . . .	25 55	Gravel, contains streaks of clay. . . . .	10 48
Upper conglomerate:		Sand, gravel, and sandy shale. . . . .	70 125	Gravel, coarse. . . . .	22 70
Sandrock, white (water- bearing). . . . .	30 460	Shale. . . . .	17 142	Clay. . . . .	8 78
Shale, blue. . . . .	5 465	Shale, sandy. . . . .	7 149	Gravel, coarse, hard, and boulders. . . . .	15 93
		Shale, blue. . . . .	16 165	Dawson Formation (upper part):	
<b>C7-67-14bcd. Alt. 6,430 ft.</b>		<b>C7-67-9bddd. Alt. 6,569 ft.</b>		Shale, sandy, blue. . . . .	14 107
Dawson Formation (upper part):		Dawson Formation (upper part):		<b>C7-67-23adda. Alt. 6,478 ft.</b>	
Topsoil. . . . .	2	Sand and gravel. . . . .	13 13	Dawson Formation (upper part):	
Sandstone. . . . .	16 18	Sandstone. . . . .	7 20	Sand, gravel, and sandy shale. . . . .	30 10
Clay, yellow and brown. . . . .	23 41	Sand, gravel, sandy shale, and shale. . . . .	60 80	Sandstone. . . . .	7 17
Sand, coarse. . . . .	16 57	Shale. . . . .	10 110	Shale. . . . .	13 50
Sandstone. . . . .	17 74	Sand, gravel, and sandy shale. . . . .	15 125	Sand, gravel, sandy shale, and streaks of shale. . . . .	150 200
Clay, sandy, yellow. . . . .	15 89	Shale. . . . .	25 150	Shale. . . . .	30 230
Sand. . . . .	20 109	<b>C7-67-14cbbb. Alt. 6,575 ft.</b>		Sandstone. . . . .	10 240
Sandstone. . . . .	10 119	Dawson Formation (upper part):		<b>C7-67-24ccbc. Alt. 6,456 ft.</b>	
Clay, sandy, yellow. . . . .	7 126	Sandstone. . . . .	22 22	Dawson Formation (upper part):	
Shale, sandy, gray. . . . .	16 142	Shale. . . . .	8 30	Sand and gravel. . . . .	75 75
Sand. . . . .	21 163	Sand and gravel. . . . .	16 66	Sand, sandy. . . . .	65 140
Shale, gray. . . . .	25 188	Shale, sandy, gray. . . . .	24 90	Sand and gravel. . . . .	10 150
Clay, red. . . . .	11 199	Sand and gravel. . . . .	25 115	Shale, sandy. . . . .	10 160
Sand. . . . .	31 230	Shale, sandy, gray. . . . .	30 145	Clay and gravel. . . . .	50 210
Shale, sandy, brown. . . . .	6 236	Sand and gravel. . . . .	55 200	Shale, sandy. . . . .	20 230
Sand. . . . .	8 244	Shale, gray. . . . .	7 207	Shale, blue. . . . .	10 240
Shale, sandy, brown. . . . .	11 255	Sand and gravel. . . . .	8 215	<b>C7-67-25bdda. Alt. 6,500 ft.</b>	
Shale, brown. . . . .	7 262	<b>C7-67-15bada. Alt. 6,360 ft.</b>		Dawson Formation (upper part):	
Shale, sandy, gray. . . . .	11 273	Dawson Formation (upper part):		Sandstone. . . . .	190 190
Sandstone, gray. . . . .	48 321	Topsoil. . . . .	1 1	Shale. . . . .	10 200
Shale, brown. . . . .	9 330	Sandstone, light-brown. . . . .	11 12	Sand (water). . . . .	60 260
Sandstone, gray. . . . .	27 357	Shale, gray. . . . .	8 20	Shale. . . . .	40 300
Shale, gray. . . . .	80 437	Ironrock. . . . .	1 21	<b>C7-67-26bcba. Alt. 6,199.9 ft.</b>	
Sandstone, gray. . . . .	28 465	Shale, gray. . . . .	2 23	Dawson Formation (upper part):	
Shale, gray. . . . .	15 480	Sandstone, fine, gray. . . . .	1 24	Topsoil. . . . .	2 2
Shale, sandy, gray. . . . .	8 488	Shale, gray. . . . .	11 15	Sand and gravel. . . . .	10 12
Sand and gray shale. . . . .	11 499	Shale, sandy, gray. . . . .	4 19	Sand and brown sandy clay. . . . .	15 47
[Upper conglomerate, 499 to 796 feet.]. . . . .	27 526	Sand. . . . .	7 46	Shale, blue and brown. . . . .	15 62
Shale, gray. . . . .	16 542	Shale, gray. . . . .	2 48	Shale, sandy, green. . . . .	10 72
Sand and gray shale. . . . .	11 553	Sand. . . . .	9 57	Sandstone, gray. . . . .	36 108
Shale, gray. . . . .	45 598	Sandstone, gray. . . . .	16 73	Shale, gray. . . . .	22 130
Shale, sandy, gray. . . . .	11 679	Sand. . . . .	1 76	Shale, sandy, gray. . . . .	4 134
Sand and gray shale. . . . .	10 639	Shale, gray. . . . .	2 78	Sand, coarse. . . . .	19 153
Sandstone. . . . .	11 650	Sand and yellow sandy shale. . . . .	15 93	Sandstone and gray sandy shale. . . . .	12 165
Clay, sandy. . . . .	22 672	Shale, grayish-brown. . . . .	8 101	Shale, gray. . . . .	35 200
Sand and gray shale. . . . .	16 688	Shale, gray. . . . .	18 119	Shale, sandy, gray. . . . .	7 207
Sandstone. . . . .	19 707	Sand. . . . .	10 129	Shale, gray. . . . .	39 246
Shale, gray. . . . .	24 731	Shale, gray. . . . .	6 135	Shale, sandy, gray. . . . .	6 252
Sand and gray shale. . . . .	16 747	Shale, sandy, gray, and layers of sand. . . . .	6 141	Shale, sandy, brown. . . . .	6 258
Shale, gray. . . . .	26 773	Shale, blue and gray. . . . .	35 176	Sand, coarse, and brown sandy shale [Upper conglomerate, 258 to 485 feet.]. . . . .	13 271
Sand and gray shale. . . . .	23 796	Shale, sandy, blue. . . . .	5 181	Shale, gray, and coarse sand. . . . .	9 280
Shale, gray. . . . .	30 826	Sand and small layers of blue sandy shale. . . . .	8 189	Shale, sandy, gray. . . . .	13 293
Shale, sandy, gray. . . . .	9 835	Sand and sandstone. . . . .	13 202	Sand, coarse, and gray shale. . . . .	15 308
Sand and gray shale. . . . .	11 844	Sandstone, hard. . . . .	6 208	Sand, coarse, and layers of gray sandy shale. . . . .	12 338
Shale, sandy, gray. . . . .	16 866	<b>C7-67-17acca. Alt. 6,104.5 ft.</b>		Shale, gray. . . . .	9 347
Shale, gray. . . . .	6 868	Dawson Formation (upper part):		Sand, coarse. . . . .	16 363
Sand and gray shale. . . . .	11 879	Soil. . . . .	4 4	Shale, gray, and thin layers of coarse sand. . . . .	9 372
Shale, gray. . . . .	19 898	Gravel, hard. . . . .	15 19	Shale, gray and brown. . . . .	14 386
Sand and gray shale. . . . .	67 965	Clay. . . . .	5 25	Shale, sandy, brown. . . . .	11 397
Shale, gray. . . . .	49 1,014	Gravel, hard. . . . .	5 30	Sand, gray, and shale. . . . .	11 408
Sand and gray shale. . . . .	8 1,022	Clay, brown. . . . .	21 51	Shale, gray. . . . .	7 415
Shale, gray. . . . .	13 1,035	Gravel, hard. . . . .	13 64	Sand, medium, and gray sandy shale. . . . .	11 426
Sand. . . . .	4 1,039	Conglomerate, hard. . . . .	2 66	Shale, gray. . . . .	7 433
Shale, sandy, gray. . . . .	26 1,065	Shale, sandy, brown. . . . .	3 69	Shale, gray, and thin layers of sand. . . . .	13 446
Sand and sandy gray shale. . . . .	11 1,076	Silt, hard, blue. . . . .	28 97	Sand, coarse. . . . .	39 485
Shale, gray. . . . .	9 1,085	Shale, blue. . . . .	4 101	Shale, sandy, gray. . . . .	11 496
Shale, sandy, gray, and sand. . . . .	74 1,159	Conglomerate, hard. . . . .	9 110	coarse sand. . . . .	2 498
Shale, gray. . . . .	29 1,188	Shale, blue. . . . .	15 145	Shale, sandy, gray. . . . .	10 509
Dawson Formation (lower part):		Shale, sandy, yellow. . . . .	15 160	Sand, coarse. . . . .	3 511
[Middle conglomerate, 1,188 to 1,392 feet.]. . . . .	24 1,212	Conglomerate, hard. . . . .	16 176	Shale, sandy, gray. . . . .	18 529
Shale, gray. . . . .	26 1,238	Silt, hard, white. . . . .	15 191	Sand, coarse. . . . .	28 557
Sand and gray shale. . . . .	77 1,315	Conglomerate, hard. . . . .	17 208	Shale, sandy, gray. . . . .	12 569
Shale, gray. . . . .	28 1,343	Silt, hard, white. . . . .	6 214	Shale, coarse. . . . .	14 583
Sand and gray shale. . . . .	67 1,410	Conglomerate. . . . .	1 215	Shale, sandy, gray. . . . .	20 603
Sand. . . . .	16 1,426	Silt, white. . . . .	13 272	Sandstone, gray. . . . .	20 623
Shale, gray. . . . .	6 1,432	Conglomerate. . . . .	4 276	Shale, sandy, gray. . . . .	16 639
Shale, gray, and sand. . . . .	13 1,445	Silt, white and yellow conglomerate. . . . .	2 282	layers of coarse sand. . . . .	38 677
Sand, fine. . . . .	9 1,454	Shale, yellow and blue silt, blue. . . . .	13 295		
Shale, gray. . . . .	12 1,466	Conglomerate. . . . .	7 312		
Sand, fine. . . . .	21 1,487	Silt, blue. . . . .	7 319		
Shale, gray, and fine sand. . . . .	13 1,500	Conglomerate. . . . .	44 363		
Shale, gray. . . . .	12 1,512	Silt, blue. . . . .	6 369		
Sand, fine and coarse, and gray shale. . . . .	70 1,582	<b>C7-67-19bbbc. Alt. 5,880 ft.</b>			
Shale, sandy, gray. . . . .	25 1,607	Piney Creek Alluvium:			
Shale, gray. . . . .	73 1,680				
Shale, gray, and sand [Lower conglomerate, top at 1,692 feet.]. . . . .	18 1,718				
Shale, gray. . . . .	9 1,727				
Sand and gray shale. . . . .	10 1,757				

Table 1.--Logs of wells and test holes--Continued

	Thick- ness	Depth		Thick- ness	Depth		Thick- ness	Depth
C7-67-16bcbg.--Continued			C7-68-4abba.--Continued			C7-68-4bdbc.--Continued		
Shale, sandy, gray . . .	33	710	Sand and yellow clay . . .	97	107	Sand and red clay . . .	6	634
Dawson Formation (lower part):			Dawson Formation (upper part):			Lower conglomerate:		
Middle conglomerate:			Shale, gray . . .	22	129	Sand, coarse, red		
Sand, coarse . . .	6	716	Sand, red [Upper conglom-			(water-bearing). . .	58	692
Sand, coarse, and thin			glomerate, 129 to			Clay, blue . . .	4	596
layers of gray shale . . .	36	752	246 feet.) . . .	15	144	Sand, coarse (water-		
Sand, coarse . . .	16	768	Sand . . .	56	200	bearing) . . .	23	719
Shale, gray . . .	32	800	Shale, gray . . .	6	206	Clay, blue, and shale	9	728
C7-67-27abad. Alt. 6,169.8 ft.			Sand . . .	19	225	Quartz and sandstone		
Dawson Formation (upper part):			Shale, gray . . .	12	237	(water) . . .	19	747
Topsoil . . .	2	2	Sand . . .	9	246	Clay, gray and red . . .	4	751
Clay, yellow . . .	4	6	Shale, gray . . .	44	290	Quartz and hard sand-		
Clay, sandy, yellow . . .	6	12	Dawson Formation (lower part):			stone (water) . . .	3	754
Shale, green, and sand . . .	10	22	Sand [Middle conglom-			Clay, brown and gray . . .	12	766
Sand and gravel . . .	22	44	erate, 290 to 432			Sand (water) . . .	4	770
Shale, blue and gray . . .	11	55	.] . . .	31	121	Clay, gray, and silica	15	785
Shale, reddish-brown . . .	2	57	Shale, gray . . .	21	142	Sand and layers of		
Shale, gray . . .	4	61	Sand . . .	20	162	brown clay (water) . . .	37	822
Sandstone, blue, and			Shale, gray . . .	9	170	Shale and layers of		
sand . . .	14	75	Sand . . .	24	194	clay . . .	28	850
Sandstone, hard . . .	6	81	Shale, gray . . .	13	407			
Shale, green, and			Sand . . .	25	432			
sandstone . . .	5	86	Lime, sandy . . .	3	435			
Sandstone, fine, gray . . .	5	91	Shale, gray, and sand . . .	164	599			
Shale, gray . . .	5	96	Lime, sandy . . .	1	600			
Sandstone, fine, gray,			Lower conglomerate:					
and shale . . .	11	107	Sand and gray shale . . .	159	759			
Sand . . .	2	109	Lime, sandy . . .	2	761			
Shale, blue . . .	4	113	Sand and gray shale . . .	19	800			
Sand, blue shale, and								
sandstone . . .	9	122						
Shale, green gray			C7-68-4bdbc. Alt. 5,791.6 ft.					
and brown . . .	54	176	Slocum Alluvium:					
Sandstone, blue . . .	7	183	Soil . . .	8	8			
Shale, gray, and			Clay, light . . .	2	10			
sandstone . . .	8	191	Sand and gravel . . .	10	20			
Shale, brown . . .	4	195	Clay, sand, and gravel . . .	4	24			
Sandstone, gray . . .	14	209	Sand and gravel . . .	4	28			
Shale, sandy, gray . . .	9	218	Sand, gravel, and					
Shale, gray . . .	3	221	boulders . . .	4	32			
Upper conglomerate:			Dawson Formation (upper part):					
Sand, coarse, and			Sand, white . . .	1	33			
shale . . .	75	296	Clay, white, and sand . . .	5	38			
Shale, gray . . .	18	314	Clay, light-blue . . .	5	43			
Sand, coarse . . .	4	318	Sand, fine . . .	3	46			
Shale, gray and brown . . .	17	335	Clay and sand . . .	11	57			
Sand, coarse, and gray			Clay, blue . . .	1	58			
shale . . .	51	3						



Table 3.--Logs of wells and test holes--Continued

	Thick- ness	Depth		Thick- ness	Depth		Thick- ness	Depth
<b>C7-68-11cbbq.--Continued</b>			<b>C7-68-11dbad.--Continued</b>			<b>C7-68-11dbad.--Continued</b>		
Shale, gray. . . . .	9	190	Sand, angular, arkosic,			Sand, rounded, very		
Sand . . . . .	8	198	40 percent medium,			arkosic, 40 per-		
Shale, gray. . . . .	15	211	60 percent fine,			cent coarse, 50		
Sand . . . . .	12	225	light-olive-gray . . .	14	311	percent medium,		
Shale, gray. . . . .	4	229	Shale, black . . . . .	10	321	light-olive-gray . . .	12	578
<b>C7-68-11dbad. Alt. 5,942.8 ft.</b>			Sandstone, medium,			Sandstone, medium to		
<b>Dawson Formation (upper part):</b>			angular to rounded,			coarse, well-cemented,		
Sandstone, medium, well-			poorly cemented,			greenish-gray. . . .		
cemented, calcareous,			greenish-gray. . . .	9	330	grains are angular		
very arkosic,			Shale, blackish-gray . .	27	357	to rounded . . . . .	19	597
yellowish-brown;			Sand, medium, well-			Sand, coarse, angular		
grains are angular to			rounded, micaceous,			to rounded, slightly		
well-rounded . . . . .	10	10	moderately arkosic,			arkosic, light-olive-		
Sand, angular to			light-brownish-gray. .	13	370	gray; contains		
rounded, arkosic, 30			Sand, angular,			trace of mica. . . . .	11	628
percent coarse, 40			moderately arkosic,			Sandstone, medium to		
percent medium,			50 percent coarse,			coarse, quartz,		
yellowish-gray;			50 percent medium,			well-cemented,		
contains a trace			light-olive-gray . . .	7	377	yellowish-brown;		
of shale . . . . .	8	18	Shale, grayish-black . .	4	381	grains are angular to		
Sandstone, medium to			Sandstone, fine to			rounded and		
coarse, firmly			medium, angular,			frosted. . . . .	17	645
cemented, moderately			well-cemented,			Shale, black . . . . .	10	655
arkosic, grayish-			moderately arkosic,			Sandstone, fine, well-		
orange; contains			pale-yellowish-			cemented, calcareous,		
iron oxide; grains			brown. . . . .	19	400	medium-light-gray;		
are angular. . . . .	24	42	Sand, rounded, arkosic,			grains are angular . .	8	663
Shale, silty, grayish-			40 percent coarse,			Shale, black . . . . .	20	683
black. . . . .	9	51	60 percent medium,			Sandstone, medium to		
Sand, medium, angular			light-olive-gray . . .	10	410	coarse, slightly		
to rounded, very			Sand, medium, angular,			arkosic, well-		
arkosic, pale-			very arkosic, mica-			cemented, light-		
yellowish-orange;			ceous, pale-yellow-			gray; grains are		
contains a trace of			brown; contains			well-rounded . . . . .	12	695
pyrite . . . . .	6	57	a trace of coal. . . .	11	421	Shale, silty, grayish-		
Sand, fine, angular,			Shale, black . . . . .	5	426	black. . . . .	26	721
moderately arkosic,			Sand, angular to well-			Sand, angular, moderately		
light-olive-gray . . .	10	67	rounded, moderately			arkosic, 50 percent		
Shale, sandy, black. . .	1	70	arkosic, 60 percent			coarse, 50 percent		
Shale, black . . . . .	2	72	medium, 40 percent			medium, light-olive-		
Sandstone, fine to			fine, light-olive-			gray; contains a		
medium, firmly			gray . . . . .	6	432	trace of mica. . . . .	6	727
cemented, moderately			Sand, angular, 60 per-			Shale, silty, black. . .	11	738
arkosic, greenish-			cent coarse, 40 per-			Sandstone, fine to		
gray; grains are			cent medium, light-			medium, light-olive-		
angular. . . . .	4	76	olive-gray . . . . .	4	436	gray; grains are		
Shale, black . . . . .	12	88	Shale, black . . . . .	6	442	well-rounded . . . . .	9	747
Sand, angular, moder-			Sand, rounded, moderate-			Shale, silty, black. . .	12	759
ately arkosic, 30			ly arkosic, 40 percent			Sandstone, medium to		
percent medium, 70			medium, 60 percent			coarse, well-cemented,		
percent fine,			fine, light-olive-			light-olive-gray;		
greenish-gray. . . .	12	100	gray . . . . .	5	447	grains are rounded . .	11	770
Sand, fine, well-			Shale, black . . . . .	5	452	Sand, angular, frosted,		
rounded, light-olive-			Sand, rounded, 40			quartz, 30 percent		
gray . . . . .	7	107	percent medium, 60			coarse, 70 percent		
Sand, medium, well-			percent fine, light-			medium, light-olive-		
rounded, light-olive-			olive-gray . . . . .	4	456	gray . . . . .	7	777
gray . . . . .	4	111	Shale, black . . . . .	1	459	Shale, black to		
Shale, black . . . . .	3	114	Sand, medium, angular			grayish-black . . . .	23	800
Sandstone, fine-grained,			to rounded, arkosic,			Sand, medium, angular,		
well-cemented,			light-olive-gray . . .	11	470	light-olive-gray . . .	11	811
moderately arkosic,			Shale, black . . . . .	8	478	Sandstone, medium,		
greenish-gray. . . .	4	118	Sand, coarse, angular			quartz, well-cemented,		
Shale, black . . . . .	47	165	to well-rounded,			greenish-gray;		
Sandstone, fine,			moderately arkosic,			grains are angular and		
angular, well-cemented,			light-brownish-			frosted; contains		
moderately arkosic,			gray . . . . .	5	483	trace of coal. . . . .	9	820
light-olive-gray . . .	10	175	Shale, grayish-black;			Sand, angular, 40		
Sandstone, medium,			contains 20 percent			percent coarse, 60		
angular,			fine sand. . . . .	4	487	percent medium,		
well-cemented,			Sandstone, medium,			greenish-gray. . . .	19	839
light-olive-gray . . .	7	182	angular, well-cemented,			Shale, black . . . . .	15	854
Shale, grayish-black .	21	203	iron cement,			Sandstone, medium,		
Sandstone, fine,			slightly arkosic,			well-cemented, light-		
rounded, well-			light-olive-gray . . .	8	495	brownish-gray. . . .	5	859
cemented, arkosic,			Shale, grayish-black . .	5	500	Shale, sandy, grayish-		
light-olive-gray . . .	5	208	Shale, sandy, slightly			black . . . . .	1	862
Shale, black, sandy. . .	1	211	arkosic, black . . . .	1	503	Sandstone, medium,		
Sandstone, fine to			Shale, grayish-black . .	12	515	angular, well-cemented,		
medium, angular,			<b>Dawson Formation (lower part):</b>			light-brownish-		
well-cemented,			Sand, angular, moderate-			gray; contains		
moderately arkosic,			ly arkosic, 40 per-			trace of mica. . . . .	7	869
light-olive-gray . . .	7	218	cent coarse, 60 per-			Shale, sandy, black. . .	5	874
Shale, black . . . . .	17	253	cent medium, light-			Sandstone, coarse,		
Sand, medium, angular,			olive-gray (Middle			angular to rounded,		
moderately arkosic,			conglomerate, 515			poorly cemented,		
light-olive-gray			to 839 feet.) . . . .	25	540	moderately arkosic,		
[Upper conglomerate,			Sandstone, medium,			yellowish-gray . . . .	5	879
255 to 438 feet.] . .	4	259	angular, poorly			Shale, sandy, black. . .	1	882
Shale, black. . . . .	14	273	cemented with iron			<b>Lower conglomerate:</b>		
Sandstone, fine,			oxide, light-			Sand, angular to well-		
angular, well-			brownish-gray. . . .	1	543	rounded, frosted,		
cemented, arkosic,			Shale, black . . . . .	1	546	quartz, 70 percent		
light-olive-gray. . .	8	281	Sandstone, medium,			coarse, 30 percent		
Shale, grayish-black;			poorly cemented with			medium, light-		
contains 30 percent			iron oxide, light-			gray . . . . .	9	991
fine sand . . . . .	1	284	brownish-gray;			Sandstone, coarse,		
Sandstone, fine,			grains are			rounded, well-		
angular, well-			angular. . . . .	4	550	cemented, light-		
cemented, greenish-			Shale, black . . . . .	4	554	gray . . . . .	6	997
gray. . . . .	13	297	Sand, medium, angular			Shale, silty, grayish-		
			to rounded, arkosic,			black. . . . .	8	905
			light-brownish-gray. .	12	566			

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C7-68-11dhd.--Continued		C7-68-11dhd.--Continued		C7-68-11dhd.--Continued	
Sand, medium, angular, frosted, quartz, rounded, arkosic, light-gray . . . . .	11 916	Sand, angular to rounded, slightly arkosic, 30 percent coarse, 70 percent medium, yellowish-gray . . . . .	10 1,133	Coal . . . . .	3 1,704
Shale, black . . . . .	4 920	Shale, silty, black . . . . .	7 1,140	Shale, black . . . . .	9 1,713
Sandstone, coarse, well-cemented with iron oxide, light-olive-gray; grains are rounded . . . . .	14 934	Sand, coarse, rounded, slightly arkosic, medium-light-gray; contains a trace of mica . . . . .	8 1,148	Coal, fractured . . . . .	2 1,715
Shale, grayish-black . . . . .	4 938	Sand, medium, angular, frosted, quartz, slightly arkosic, light-olive-gray; feldspar grains are rounded . . . . .	10 1,158	Shale, silty, grayish-black . . . . .	3 1,718
Sand, coarse, rounded, moderately arkosic, light-olive-gray . . . . .	6 944	Shale, grayish-black; contains medium sand . . . . .	5 1,163	Coal . . . . .	7 1,728
Sand, medium, angular, frosted, moderately arkosic, light-gray; contains trace of silty black shale, and feldspar grains are rounded . . . . .	8 952	Sand, fine, angular to rounded, slightly arkosic, light-olive-gray; contains a trace of mica . . . . .	27 1,190	Shale, black . . . . .	4 1,732
Sand, medium, angular, moderately arkosic, light-olive-gray . . . . .	7 959	Sand, medium, angular, frosted, quartz, rounded feldspar, moderately arkosic, pinkish-gray . . . . .	10 1,200	Sandstone, fine-grained, light-olive-gray; grains are rounded; contains 10 percent black shale . . . . .	2 1,734
Shale, black to grayish-black; contains medium sand . . . . .	4 963	Shale, sandy, black . . . . .	6 1,206	Shale, black . . . . .	4 1,738
Sand, medium, rounded, yellowish-gray; contains trace of sandy shale . . . . .	5 968	Sandstone, fine to medium, rounded, well-cemented, slightly arkosic, light-olive-gray . . . . .	11 1,217	Coal, fractured . . . . .	7 1,745
Shale, silty, black . . . . .	4 972	Shale, sandy, black . . . . .	18 1,235	Coal, fractured . . . . .	5 1,750
Sand, medium, angular to rounded, moderately arkosic, well-cemented, greenish-gray . . . . .	6 978	Sandstone, fine, rounded well-cemented, moderately arkosic, light-olive-gray . . . . .	10 1,245	Shale, silty, black . . . . .	8 1,758
Shale, black . . . . .	9 987	Shale, sandy, grayish-black . . . . .	4 1,249	Coal . . . . .	3 1,761
Sand, medium, rounded, moderately arkosic, light-olive-gray . . . . .	5 992	Sand, medium, angular, frosted, quartz, light-olive-gray . . . . .	15 1,264	Shale, black . . . . .	3 1,764
Sandstone, fine to medium, slightly arkosic, light-olive-gray; grains are angular to rounded . . . . .	7 999	Shale, sandy, grayish-black . . . . .	4 1,268	Coal . . . . .	1 1,765
Shale, slightly sandy, black . . . . .	5 1,004	Sandstone, fine to medium, well-cemented, moderately arkosic, light-olive-gray . . . . .	20 1,288	Shale, slightly sandy, black . . . . .	2 1,767
Sand, medium, angular to rounded, light-olive-gray . . . . .	4 1,008	Shale, silty, black . . . . .	30 1,318	Sand, fine, rounded, light-gray; contains 10 percent shale . . . . .	2 1,769
Sand, rounded, moderately arkosic, 40 percent medium, 60 percent fine, light-olive-gray . . . . .	10 1,018	Sand, fine, angular, frosted, quartz, arkosic, light-olive-gray; feldspar grains are rounded . . . . .	15 1,333	Shale, slightly sandy, black . . . . .	4 1,773
Limestone, sandy, light-olive-gray . . . . .	5 1,023	Shale, silty, black to grayish-black . . . . .	16 1,349	Coal, fractured . . . . .	6 1,779
Sand, medium, angular to rounded, light-olive-gray . . . . .	5 1,028	Sand, fine, angular to rounded, arkosic, light-olive-gray . . . . .	6 1,355	Shale, grayish-black . . . . .	14 1,793
Sandstone, fine to medium, slightly arkosic, light-olive-gray; grains are angular to rounded . . . . .	5 1,033	Laramie Formation:		Coal, highly fractured . . . . .	7 1,800
Shale, silty, grayish-black . . . . .	1,040	Shale, black . . . . .	25 1,380	Shale, grayish-black . . . . .	3 1,803
Sand, angular to well-rounded, moderately arkosic, 40 percent coarse, 60 percent medium, light-gray . . . . .	25 1,065	Shale, sandy, grayish-black . . . . .	5 1,385	Sandstone, fine to medium, light-gray; grains are rounded . . . . .	12 1,957
Shale, black . . . . .	5 1,070	Shale, black . . . . .	4 1,389	Shale, grayish-black . . . . .	4 1,961
Sand, fine, well-rounded, arkosic, light-gray . . . . .	4 1,074	Sand, medium, angular, frosted, quartz, light-olive-gray . . . . .	3 1,392	Sand, fine, rounded, medium-light-gray . . . . .	5 1,966
Sand, angular, arkosic, 70 percent coarse, 30 percent medium, light-gray . . . . .	6 1,080	Shale, black; contains a trace of coal . . . . .	68 1,460	Shale, grayish-black . . . . .	4 1,970
Shale, slightly sandy, grayish-black . . . . .	5 1,085	Sandstone, fine, angular, light-olive-gray . . . . .	7 1,467	Sand, fine, rounded, light-gray . . . . .	2 1,972
Sand, fine, rounded, arkosic, yellowish-gray . . . . .	15 1,100	Coal . . . . .	1 1,468	Shale, silty, black . . . . .	5 1,977
Sandstone, medium to coarse, angular, well-cemented, light-gray; grains are angular . . . . .	12 1,112	Sand, fine, angular, frosted, quartz, rounded feldspar, moderately arkosic, light-gray; feldspar grains are rounded . . . . .	34 1,502	Sand, rounded, 30 percent medium, 70 percent fine, light-gray . . . . .	6 1,983
Sandstone, medium, rounded, poorly cemented, light-gray . . . . .	11 1,123	Shale, silty, black . . . . .	50 1,552	Shale, silty, grayish-black . . . . .	45 2,028
		Coal . . . . .	2 1,554	Fox Hills Sandstone:	
		Shale, black . . . . .	8 1,562	Milliken Sandstone Member:	
		Shale, sandy, grayish-black . . . . .	3 1,565	Sandstone, fine to medium, light-gray; grains are rounded . . . . .	
		Shale, black . . . . .	44 1,609	Shale, sandy, grayish-black . . . . .	5 2,033
		Coal, fractured . . . . .	2 1,611	Shale, black . . . . .	2 2,035
		Shale, sandy, grayish-black . . . . .	11 1,622	Shale, sandy, grayish-black . . . . .	2 2,037
		Coal . . . . .	3 1,625	Shale, silty, black . . . . .	2 2,039
		Sandstone, fine, well-cemented, calcareous, light-gray; contains 5 percent grayish-black shale; grains are angular . . . . .	10 1,635	Sandstone, fine, rounded, light-gray; contains 20 percent black shale . . . . .	4 2,041
		Shale, silty, grayish-black . . . . .	29 1,664	Sandstone, fine to medium, light-gray; grains are rounded . . . . .	25 2,070
		Shale, sandy, grayish-black . . . . .	20 1,684	Shale, silty, black . . . . .	17 2,087
		Coal . . . . .	4 1,688	C7-68-14dca. Alt. 5,848.1 ft.	
		Shale, silty, black . . . . .	13 1,701	Piney Creek Alluvium:	
				Loam . . . . .	
				Dawson Formation (upper part):	
				Shale, black . . . . .	10 40
				Sandrock, red (water) . . . . .	2 42
				Sand, blue . . . . .	40 82
				Sandrock, white . . . . .	24 106
				Shale . . . . .	6 112
				Sandrock, white . . . . .	5 117
				Shale . . . . .	11 128
				Sandrock, white . . . . .	10 138
				Coal shale . . . . .	4 142
				Coal . . . . .	1 143
				Sandrock, white [Upper conglomerate, 143 to 351 feet] . . . . .	75 218
				Shale . . . . .	4 222
				Sandrock . . . . .	15 237
				Sandrock, white (water) . . . . .	8 245
				Shale . . . . .	6 251
				Sandrock, white . . . . .	6 257
				Clay, blue . . . . .	11 268
				Sandrock, white . . . . .	11 279
				Clay, blue . . . . .	8 287
				Sandrock (water-bearing) . . . . .	21 308

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>C7-68-14daca.--Continued</b>		<b>C7-68-27bbaa.--Continued</b>		<b>C8-65-9baab.--Continued</b>	
Clay, blue.	19	Lower conglomerate:		Sand, gravel, and	
Shale	11	Sand and thin beds		streaks of hard	
Sandrock, gray.	7	of gray shale.	50	shale.	20
Sandrock (water-bearing).	6	Sand, coarse.	8	Shale.	55
Sandrock.	4	Shale, gray, and sand.	9	Shale, sandy.	19
Coal.	1			Sand, streaks of hard	
Sandrock.	10			gravel, and sandy	
Clay.	7	<b>C7-69-2accc. Alt. 5,800 ft.</b>		shale.	76
Shale.	7	<b>Dakota Group:</b>		Shale.	20
Clay.	10	<b>South Platte Formation:</b>		Shale, blue.	10
Sandrock.	4	Clay, brown.	3		
Clay.	4	Conglomerate.	122		
Sandrock, gray.	6	Sand.	19	<b>C8-65-8ccbb. Alt. 5,500 ft.</b>	
Shale.	5	Conglomerate.	4	<b>Dawson Formation (upper</b>	
<b>Dawson Formation (lower part):</b>		Sandstone.	198	<b>part):</b>	
Middle conglomerate:		Clay, fine.	8	Clay, sandy.	18
Sandrock, iron.	6	<b>Lytle Formation:</b>		Clay, green.	42
Sandrock, hard, gray.	14	Sandstone.	136	Sand (very little	
Sandrock (water-bearing).	12			water).	12
Clay, blue.	9	<b>C8-65-ladad. Alt. 6,598 ft.</b>		Clay, green.	24
Shale.	10	<b>Louviere Alluvium:</b>		Sand and layers of	
Sandrock.	9	Sand and gravel.	20	clay.	35
Clay, blue.	5	<b>Dawson Formation (upper</b>		Shale.	4
Shale.	8	<b>part):</b>			
Sandrock.	17	Shale.	15	<b>C8-65-9cdac. Alt. 5,715 ft.</b>	
Shale, blue.	29	Sand, gravel, and		<b>Dawson Formation (upper</b>	
Sandrock.	5	sandy shale.	54	<b>part):</b>	
Shale.	35	Shale.	14	Gravel and boulders.	35
Sandrock.	7	Sand, gravel, and		Shale, sandy, gray.	55
Sandrock (dry).	9	sandy shale.	12	Sand and gravel.	30
Shale.	13	Shale.	20	Shale, sandy, gray.	30
Sandrock, white.	42				
Shale.	8	<b>C8-65-6cabd. Alt. 6,430 ft.</b>		<b>C8-65-9dccc. Alt. 6,685 ft.</b>	
		<b>Dawson Formation (upper</b>		<b>Dawson Formation (upper</b>	
<b>C7-68-27bbaa. Alt. 6,067.8 ft.</b>		<b>part):</b>		<b>part):</b>	
<b>Dawson Formation (upper part):</b>		Topsoil.	1	No sample.	54
Topsoil.	2	Clay, sandy, yellow	16	Clay, hard, yellow.	7
Clay, sandy, brown.	10	and brown.	17	Sand.	43
Sandstone, white.	23	Clay, yellow.	12	Clay.	16
Clay, sandy, gray.	3	Clay, sandy, yellow.	10	Sand (a little water).	12
Clay, red.	4	Clay, yellow.	5	Clay.	8
Sandstone, red [Upper		Clay, sandy, yellow.	3	Sand (water-bearing).	20
conglomerate, 42 to 194		Sandstone.	4	Sand and clay, mixed.	11
feet]		Sand, light-gray, shale,		Clay, hard.	5
and sandstone.	4	and sandstone.	30		
Sandstone, white.	11	Shale, yellowish-gray.	5	<b>C8-65-10aadd. Alt. 6,682 ft.</b>	
Gravel.	4	Shale, sandy, yellow.	6	<b>Dawson Formation (upper</b>	
Sandstone, white.	11	Sandstone, soft, and		<b>part):</b>	
Shale, sandy, gray.	6	gray sandy shale.	24	Shale.	17
Gravel.	3	Sand.	17	Sand and gravel.	13
Shale, sandy, gray, and		Shale, grayish-brown.	9	Shale.	20
coarse sand.	20	Shale, light-gray.	3	Sand, gravel, and	
Shale, sandy, brown.	12	Shale, sandy, gray.	6	sandy shale.	45
Sand and layers of brown		Shale, yellow.	6	Shale.	22
shale.	5	Shale, light-gray.	14	Shale, sandy.	3
Shale, sandy, gray.	3	Shale, sandy, yellow.	11		
Sand.	5	Sand and layers of gray		<b>C8-65-11ldcbb. Alt. 6,548 ft.</b>	
Shale, gray, and layers		sandy shale.	8	<b>Dawson Formation (upper</b>	
of sandstone.	56	Shale, yellow.	2	<b>part):</b>	
Shale, green.	5	Sand, fine, white, and		Sand.	15
Shale, sandy, brown.	4	sandy shale.	5	Shale, sandy, blue.	45
Sand.	3	Shale, yellow.	4	Sand and gravel.	5
Shale, gray.	5	Shale, sandy, grayish-		Shale, sandy, gray.	40
Shale, sandy, brown.	9	brown.	9	Sand and gravel.	27
Shale, gray.	12	Shale, brown.	1	Shale, sandy.	6
Sandstone, gray.	14	Sand and layers of		Shale, blue.	12
Shale, gray.	16	gray fine sandy shale.	5	Shale, sandy, blue.	35
Shale, sandy, brown.	4	Shale, brownish-gray.	4	Sand and clay.	8
Shale, sandy, gray.	16	Shale, sandy, brownish-		Shale, sandy, blue.	27
Sandstone.	23	gray.	127	Shale, sandy, gray.	25
Shale, sandy, gray.	26	Shale, brown and gray.	6	Sand and gravel.	25
Sandstone.	19	Shale, sandy, yellowish-		Shale, sandy, gray.	10
Shale, sandy, gray.	25	gray.	11	Shale, blue.	12
Sandstone.	29	Sand.	6	Shale, sandy, blue.	33
Shale, gray.	11	Shale, sandy, yellowish-			
Sandstone.	5	gray.	2	<b>C8-65-11aabb. Alt. 6,519 ft.</b>	
Shale, gray, and layers		Sand.	2	<b>Dawson Formation (upper</b>	
of sand.	19	Sand and light-gray		<b>part):</b>	
Shale, gray.	35	layers of sandy shale.	14	Sand, hard.	12
		Shale, gray.	2	Shale.	8
<b>Dawson Formation (lower part):</b>				Sand, hard gravel, and	
Sand, coarse [Middle		<b>C8-65-6ccba. Alt. 6,400 ft.</b>		shale.	23
conglomerate, 502 to		<b>Dawson Formation (upper</b>		Shale.	17
779 feet.]		<b>part):</b>		Sand, hard gravel, and	
Shale, sandy, gray.	13	Topsoil and gravel.	5	streaks of shale.	35
Sand, coarse.	35	Clay, green.	37	Shale.	55
Shale, gray.	8	Sand.	6		
Sand, coarse.	22	Clay.	6	<b>C8-65-15acda. Alt. 6,689 ft.</b>	
Shale, gray.	14	Sand and layers of		<b>Dawson Formation (upper</b>	
Sand, coarse.	17	clay.	66	<b>part):</b>	
Shale, gray.	28	Clay.	28	Shale.	15
Shale, sandy, brown.	9	Sand.	2	Sand and gravel.	20
Shale, sandy, gray.	5	Clay.	24	Gravel.	5
Sand, coarse, and gray		Mud, soft, blue.	14	Sand and gravel.	35
shale.	71	Clay.	9	Shale.	30
Sandstone.	18	Sand and gravel.	13	Shale, sandy.	32
Shale, sandy, gray.	5	Clay.	13	Shale.	13
Sandstone, gray, sand,					
and thin beds of gray		<b>C8-65-9baab. Alt. 6,544 ft.</b>		<b>C8-65-15dadd. Alt. 6,714 ft.</b>	
shale.	13	<b>Dawson Formation (upper</b>		<b>Dawson Formation (upper</b>	
Shale, gray, and coarse		<b>part):</b>		<b>part):</b>	
sand.	69	Sand and gravel.	10	Sandstone.	65
Shale, hard, sandy, gray.	70	Shale.	45	Shale, gray.	30

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>CG-64-15dadd.</b> --Continued		<b>CG-66-18aah.</b> --Continued		<b>CG-66-1abba.</b> --Continued	
Sand and sandy shale . . . . .	65	Broadway Alluvium:		Dawson Formation (upper	
Sand . . . . .	40	Sand, very fine to		part):	
Shale, blue . . . . .	20	very coarse, poorly		Sandrock, cemented	67
Shale, sandy . . . . .	5	sorted, subangular,		gravel, and clay . . . . .	70
	225	arkosic, and about		Shale . . . . .	
<b>CG-65-16dacc.</b> Alt. 6,775 ft.		20 percent very			
Dawson Formation (upper		fine gravel; con-		<b>CG-66-1ddca.</b> Alt. 6,116.4 ft.	
part):		tains yellowish-		Piney Creek Alluvium:	
Clay, yellow and brown . . . . .	20	brown clay at 22		Topsoil . . . . .	8
Limestone . . . . .	40	feet . . . . .	20.5	Broadway and Louviers	
Clay, yellow . . . . .	7			Alluvium, undifferentiated:	
Sandstone and clay . . . . .	68	Louviers Alluvium:		Gravel, medium to	
Sand and gravel . . . . .	115	Sand, very fine to		coarse . . . . .	42
medium to fine . . . . .	10	fine, arkosic,		Louviers Alluvium:	50
Sand and clay . . . . .	17	noncalcareous, silty,		Gravel and clay . . . . .	52
	182	medium-light-gray . . . . .	5	Dawson Formation	
<b>CG-65-23cdbe.</b> Alt. 6,621 ft.		Gravel, very fine,		Shale . . . . .	54
Dawson Formation (upper		sand, medium to			
part):		coarse, and tan		<b>CG-66-5bdaa.</b> Alt. 6,568 ft.	
Shale, sandy . . . . .	5	sticky clay . . . . .	10	Dawson Formation (upper	
Gravel . . . . .	10			part):	
Boulders, broken rock,		Silt, sandy, noncal-		Sandstone, hard . . . . .	145
sand, and gravel . . . . .	10	careous, greenish-		Shale, yellow . . . . .	156
Shale . . . . .	75	gray . . . . .	5	Shale, gray . . . . .	165
sand, gravel, and		Gravel, very fine to			
sandy shale . . . . .	15	fine, arkosic,		<b>CG-66-6cadd.</b> Alt. 6,501 ft.	
Shale, sandy . . . . .	10	angular to subangular,		Dawson Formation (upper	
Shale . . . . .	10	and 20 percent very		part):	
	135	coarse sand . . . . .	4.5	Sand and gravel . . . . .	45
<b>CG-65-12dcac.</b> Alt. 6,762 ft.		Dawson Formation (upper		Shale, sandy . . . . .	75
Dawson Formation (upper		part):		Sand and gravel . . . . .	120
part):		Shale, clay, noncal-		Shale, blue . . . . .	129
Topsoil . . . . .	2	careous, brownish-		Sand and gravel . . . . .	140
Clay, light-brown . . . . .	13	gray, and light-olive-		Shale, blue . . . . .	146
Clay and sand . . . . .	20	gray soft very cal-		Shale, sandy . . . . .	160
Rock . . . . .	10	careous siltstone;		Shale, sandy, blue . . . . .	190
Clay, yellow, and		contains montmoril-			
rock . . . . .	45	lonite . . . . .	.5	<b>CG-66-6dda.</b> Alt. 6,509 ft.	
Sand and medium				Dawson Formation (upper	
gravel . . . . .	20	<b>CG-66-1aabb.</b> Alt. 6,080.4 ft.		part):	
Sand and clay rock . . . . .	35	Piney Creek Alluvium:		Shale . . . . .	16
	145	Loam, sandy, plastic,		Sand, gravel, and	
<b>CG-66-1bbbc.</b> Alt. 6,340 ft.		brown and tan . . . . .	.5	sandstone . . . . .	29
Dawson Formation (upper		Clay, silty and		Sand and gravel . . . . .	40
part):		sandy, plastic . . . . .	4.5	Shale . . . . .	55
Topsoil, sandy . . . . .	1	Broadway Alluvium:		Sand, gravel, and	
Sand . . . . .	13	Sand, fine to coarse,		sandy shale . . . . .	90
Clay, yellow . . . . .	3	angular to subrounded,		Shale . . . . .	105
Sand . . . . .	26	arkosic, a little very		Shale, sandy . . . . .	110
Clay, sandy, yellow . . . . .	21	fine gravel, and		Shale . . . . .	120
Sand and yellow sandy		some light-olive-gray			
clay . . . . .	19	noncalcareous silt	12.5	<b>CG-66-9cbcc.</b> Alt. 6,595 ft.	
Shale, gray . . . . .	22	Sand, very fine to		Dawson Formation (upper	
Clay, sandy, yellow . . . . .	16	fine, angular to		part):	
Sand and yellow sandy		subangular, arkosic,		Shale . . . . .	5
clay . . . . .	40	very silty, noncal-		Sand, gravel, and	
Clay, sandy, yellow . . . . .	15	careous, pale-		sandstone . . . . .	37
Shale, gray . . . . .	5	yellowish-brown . . . . .	5	Shale . . . . .	45
Clay, sandy, yellow . . . . .	43	Louviers Alluvium:		Sandstone, sand, and	
Shale, gray . . . . .	5	Clay, tough . . . . .	2.5	gravel . . . . .	70
and sand . . . . .	43	Sand, very fine to		Shale . . . . .	85
Shale, gray . . . . .	5	very coarse, poorly		Sand, gravel, and	
	229	sorted, arkosic,		sandstone . . . . .	140
<b>CG-66-1aacc.</b> Alt. 6,270 ft.		noncalcareous, pale-		Sandstone, hard . . . . .	160
Dawson Formation (upper		yellowish-brown;		Shale . . . . .	167
part):		contains thin beds		Shale, sandy . . . . .	172
Shale . . . . .	7	of silt and a thin		Shale . . . . .	180
Sand, hard gravel,		lens of coarse			
streaks of shale, and		gravel at 11 feet . . . . .	17.5	<b>CG-66-3dcdg.</b> Alt. 6,531 ft.	
yellow shale . . . . .	18	Sand, very fine to		Dawson Formation (upper	
Shale, yellow . . . . .	10	medium, silty, non-		part):	
Shale, blue . . . . .	15	calcareous . . . . .		Sand gravel . . . . .	12
Shale, sandy . . . . .	20	pale-yellowish-brown	5	Shale . . . . .	15
Sand and hard gravel . . . . .	7	Cobbles, fine to		Sand and gravel . . . . .	40
Shale . . . . .	23	coarse gravel, and		Shale . . . . .	52
Gravel and hard sand . . . . .	15	sandy clay . . . . .	3.5	Sand, gravel, sandy	
Shale . . . . .	80	Sand, fine gravel, and		shale, and shale . . . . .	97
Gravel, hard, and		sandy clay . . . . .	6	Sand and gravel . . . . .	110
streaks of shale . . . . .	13	Dawson Formation (upper		Sand, gravel, sandy	
Shale . . . . .	117	part):		shale, and shale . . . . .	145
	145	Sandstone, fine- to		Shale, sandy . . . . .	163
<b>CG-66-1cddc.</b> Alt. 6,126.7 ft.		very coarse-grained,		Shale . . . . .	177
Piney Creek Alluvium:		arkosic, noncalcareous,		Shale, sandy . . . . .	180
Soil . . . . .	15	very calcareous, soft,			
Broadway Alluvium:		greenish-gray; in part		<b>CG-66-11bbac.</b> Alt. 6,143.4 ft.	
Sand (water-bearing) . . . . .	15	limonite stained;		Piney Creek, Broadway, and	
Louviers Alluvium:		contains montmoril-		Louviers Alluvium, undif-	
Clay . . . . .	15	lonite . . . . .	.5	ferentiated:	
Gravel, coarse . . . . .	18			Gravel and some clay . . . . .	50
Dawson Formation (upper		<b>CG-66-1abba.</b> Alt. 6,108.3 ft.		Louviers Alluvium:	
part):		Piney Creek Alluvium:		Gravel (water-bearing) . . . . .	72
Shale . . . . .	1.5	Topsoil . . . . .	3	Boulders at 72 feet	
	64.5	Clay . . . . .	3		
<b>CG-66-1aah.</b> Alt. 6,088.1 ft.		Sand . . . . .	2	<b>CG-66-12bbac.</b> Alt. 6,300 ft.	
Piney Creek Alluvium:		Clay and some sand . . . . .	17	Dawson Formation (upper	
Sand and silt, loose,		Broadway Alluvium:		part):	
tan . . . . .	.5	Gravel, fine, dirty,		Topsoil . . . . .	1
Silt, micaceous, cal-		sand, and some clay . . . . .	11	Clay, sandy, brown . . . . .	4
careous, olive-gray;		Louviers Alluvium:		Clay, yellow, and	
contains montmoril-		Clay . . . . .	5	sand . . . . .	6
lonite . . . . .	7	Clay and thin strips		Clay, yellow . . . . .	9
Silt, sandy, calcareous,		of sand . . . . .	14	Shale, grayish-green . . . . .	20
light-olive-gray . . . . .	4.5	Gravel, sand, and			
	12	rocks . . . . .	4		
			59		

Table 1.--Logs of wells and test holes--Continued

Thick- ness		Depth	Thick- ness		Depth	Thick- ness		Depth
<b>CG-66-12bbag.---Continued</b>			<b>CG-67-1dcdg.---Continued</b>			<b>CG-67-2cdah.---Continued</b>		
Shale, yellow	3	23	Sand	10	191	Louviers Alluvium:		
Sandstone, soft, and			Shale, gray	17	208	Sand, fine to medium,		
gray shale	9	12	Sand and gray shale	9	217	very silty, non-		
Sandstone, coarse, soft	4	16	Shale, gray	15	232	calcareous, pale-	5	8
Shale, gray	2	18	Sand and gray sandy			yellowish-brown		
Sand, yellow, and iron-			shale	27	259	Gravel, very fine to		
rock	13	51	Shale, gray, and			medium, angular to		
Sand, coarse	8	59	sandstone	16	275	subangular, poorly		
Ironrock	1	60	Sand	4	279	sorted sand, and		
Shale, sandy, gray	3	63	Shale, brown and gray	21	300	cobbles	2	10
Shale, gray	3	66	Sand	12	312	Sand, fine to medium,		
Shale, sandy, gray, and			Clay, yellow brown			very silty	2	12
sand	5	71	and gray	22	334	Sand, very fine to		
Sand, fine, white	4	75	Sand	29	363	very coarse, noncal-		
Sand	8	83	Clay, gray	6	369	careous, subangular		
Sand, fine, white	3	86	Clay, sandy	8	377	to subrounded,		
Sand, coarse	3	89	Clay, gray	15	392	arkosic, medium-gray,		
Shale, gray	5	94	Sandstone, gray	24	416	and thin beds of		
Shale, grayish-green	11	105	Shale, brown	4	420	medium gray silt	5.5	17.5
Shale, blue and gray	12	117	Shale, sandy, green	5	425	Sand, very fine to		
Shale, sandy, blue	7	124	Shale, gray	12	437	fine, micaceous,		
Shale, blue	4	128	Shale, sandy, gray	24	461	and thin beds of		
Shale, gray and yellow	2	130	Shale, brown and gray	23	484	medium-light-gray		
Sand	7	137	Shale, sandy, gray	17	501	micaceous noncal-		
Shale, gray	5	142	Shale, gray	30	531	careous silt; contains		
Sand and gray sandy			Shale, sandy, gray	9	540	montmorillonite	10	27.5
shale	3	145	Upper conglomerate:			Dawson Formation (upper		
Shale, gray	13	158	Sand, fine, and sandy			part):		
Sand and gray sandy			shale	11	551	Silt, sandy, micaceous,		
shale	5	163	Sand, fine and coarse,			noncalcareous,		
Sand, coarse	13	176	and gray shale	73	624	medium-light-gray;		
Shale, gray	4	180	Shale, sandy, gray	4	628	contains montmoril-		
Sand and gray sandy						lonite	5.5	33
shale	15	195				Shale, silty, noncal-		
			<b>CG-67-2ccad. Alt. 6,150.9 ft.</b>			careous, light-olive-		
			Fill	1	1	gray; contains		
			Louviers Alluvium:			montmorillonite	2	35
			Silt, noncalcareous					
			sand, and arkosic			<b>CG-67-2cdhb. Alt. 6,158.6 ft.</b>		
			very fine to fine			Fill	2.5	2.5
			gravel	1.5	2.5	Broadway and Louviers		
			Silt, slightly sandy,			Alluvium, undifferentiated:		
			noncalcareous, pale-			Sand, medium to very		
			yellowish-brown	10	12.5	coarse, subangular to		
			Silt, slightly sandy			subrounded, and about		
			and gravelly, noncal-			40 percent very fine		
			careous, olive-brown;			gravel; contains		
			contains montmoril-			grayish-orange noncal-		
			lonite	10.5	23	careous silt and some		
			Gravel, very fine to			gravel	5	7.5
			fine, subangular to			Gravel, very fine to		
			subrounded, arkosic,			fine, arkosic, sub-		
			and silt	24.5	47.5	angular to rounded,		
			Gravel, very fine to			loose, and coarse to		
			medium, fairly well-			very coarse sand	15	22.5
			sorted, arkosic,			Gravel, very fine,		
			subangular to sub-			fairly well-sorted,		
			rounded; about 20 per-			subrounded to well-		
			cent sand and 20 per-			rounded, arkosic;		
			cent grayish-orange			mixed with clay and		
			noncalcareous			silt from 25.0 to		
			micaceous silt	9	56.5	45 feet	25	47.5
			Dawson Formation (upper			Dawson Formation (upper		
			part):			part):		
			Sandstone, very fine			Clay, silty, very sandy,		
			to very coarse,			tough, semiplastic	5	52.5
			silty, arkosic; con-			Sandstone, soft, very		
			tains montmorillonite	2	58.5	fine to very coarse,		
						very silty, very cal-		
			<b>CG-67-1ccad. Alt. 6,144.1 ft.</b>			careous, arkosic,		
			Broadway Alluvium:			dusky-yellow, at 52.5		
			Sand, very fine to very			feet		
			coarse, silty, subangu-			<b>CG-67-1ccad. Alt. 6,290 ft.</b>		
			lar to subrounded,			Dawson Formation (upper		
			noncalcareous, arkosic,			part):		
			grayish, and a little			Clay, sandy	10	10
			very fine gravel	2.5	2.5	Clay, sandy, brown, and		
			Louviers Alluvium:			layers of sand	6	16
			Silt, very sandy, noncal-			Clay, yellow and gray	5	21
			careous, medium gray,			Shale, gray	9	30
			and scattered very fine			Shale, sandy, gray	6	36
			to fine arkosic gravel	6.5	9	Shale, gray	32	68
			Silt, sandy, and very			Sandstone, blue	1	69
			fine gravel, noncal-			Shale, gray	3	72
			careous, mixed; con-			Sandstone, blue	6	78
			tains montmorillonite	5	14	Sandstone, gray, and		
			Dawson Formation (upper			gray shale	14	92
			part):			Shale, brown gray		
			Silt, micaceous, noncal-			and blue	63	155
			careous, dusky-yellow			Sandstone, blue	1	156
			and dark-yellowish-			Shale, blue and gray	9	164
			brown; contains			Coal	1	165
			montmorillonite	7.5	21.5	Shale, gray and blue	23	188
			Shale, silty, noncal-			Shale, sandy, blue	3	191
			careous, light-olive-			Shale, brown gray		
			gray; contains			blue and yellow	33	224
			montmorillonite and			Sand and sandy shale	6	230
			some gravel	6	27.5	Shale, gray	2	232
			<b>CG-67-2cdah. Alt. 6,141.9 ft.</b>			Sand	1	233
			Fill, sand, gravel,			Coal	1	234
			and debris	3	3	Shale, sandy, gray	2	236
<b>CG-66-17badg. Alt. 6,605 ft.</b>			<b>CG-67-1dcdg. Alt. 6,490 ft.</b>			<b>CG-67-2cdah. Alt. 6,141.9 ft.</b>		
Dawson Formation (upper part):			Dawson Formation (upper part):			Fill, sand, gravel,		
Topsoil	1	1	Topsoil, sandy	2	2	and debris	3	3
Sandstone, hard	5	6	Clay, sandy, brown and					
Shale, grayish-green	1	7	yellow	19	21			
Sandstone, brown and			Gravel	3	24			
gray	4	11	Sandstone	4	28			
Sandstone, hard	5	16	Clay, sandy, yellow	7	35			
Shale, grayish-green	2	18	Sandstone	5	40			
Sandstone, grayish-green	2	20	Clay, sandy, gray	6	46			
Sandstone, hard	2	22	Shale, green	4	50			
Shale, brown and gray	28	50	Clay, sandy, yellow	15	65			
Sandstone, brown	5	52	clay	58	123			
Sandstone, hard	5	57	Shale, gray	21	144			
Sandstone, brown	6	63	Sand and gray sandy					
Shale, grayish-green	6	69	shale	19	163			
Sandstone, hard	17	86	Shale, gray	18	181			
Shale, grayish-green	5	91						
Shale, light-gray	13	104						
Sandstone, hard	5	109						
Sandstone, firm	11	120						
Shale, gray	3	123						
Shale, sandy, gray, and								
sand	11	134						
Shale, gray	5	139						
Shale, sandy, gray, and								
sandstone	11	150						
Sand and sandstone	11	161						
Sandstone	5	166						
Shale, gray	7	173						
Shale, yellowish-gray	12	185						
Sand	17	202						
Shale, yellowish-gray	7	209						
Shale, brown	9	218						
Shale, brown and gray	7	225						
Shale, yellow	4	229						
Sand and yellow shale	7	236						
Sand	7	257						
Shale, sandy, light-								
gray, and sand	9	266						
Shale, yellow and gray	7	273						
Sand	5	278						
Shale, gray, and sand	5	283						
Sand	6	289						
Shale, blue	7	296						
Sand	3	299						
Shale, light-brown	6	305						
Shale, light-blue	21	326						

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
<b>CG-67-10cdd. --Continued</b>		<b>CG-67-8cddh. --Continued</b>		<b>CG-67-11dagh. --Continued</b>	
Sand and sandy shale. . . . .	4 240	Coal and sand. . . . .	2 104	Shale, gray. . . . .	1 193
Coal. . . . .	1 241	Shale, gray. . . . .	16 120	Sand. . . . .	18 211
Shale, sandy, gray. . . . .	2 243	Sand. . . . .	23 143	Shale, gray. . . . .	24 235
Shale, gray. . . . .	3 246	Shale, gray. . . . .	15 158	Sand and gray shale. . . . .	12 247
Coal. . . . .	1 247	Sand. . . . .	9 167	Shale, gray. . . . .	6 253
Shale, sandy, gray. . . . .	3 250	Shale, gray red and yellow. . . . .	2 169	Sand. . . . .	10 263
Shale, gray and brown. . . . .	11 261	Shale, gray and blue. . . . .	17 186	Shale, blue and gray. . . . .	20 283
Shale, sandy, light-blue. . . . .	4 265	Coal. . . . .	1 187	Sand. . . . .	4 287
Shale, gray. . . . .	2 267	Shale, sandy, gray, and sand. . . . .	3 190	Shale, gray. . . . .	5 292
Sand. . . . .	2 269	Shale, blue. . . . .	2 192	Sand. . . . .	10 302
Coal. . . . .	1 270	Sand. . . . .	2 194	Shale, gray. . . . .	4 306
Shale, gray. . . . .	8 278	Shale, gray. . . . .	5 199	Sand. . . . .	5 311
<b>Upper conglomerate:</b>		Sand. . . . .	4 203	Shale, gray. . . . .	13 331
Sand, coarse, and fine gravel. . . . .	4 282	Sand. . . . .	4 207	Sand. . . . .	5 336
Shale, sandy, gray. . . . .	2 284	Shale, blue. . . . .	6 213	Shale, gray. . . . .	9 345
Sand, sandy shale, and coal. . . . .	6 290	Sand and coal. . . . .	2 215	Sand. . . . .	38 383
Shale, gray and blue. . . . .	18 308	Shale, gray. . . . .	10 225	Shale, gray, and sand. . . . .	18 401
Sand, coarse, and fine gravel. . . . .	5 313	Sand. . . . .	5 230	Sand. . . . .	76 477
Shale, gray. . . . .	39 352	Shale, gray. . . . .	8 238	Shale, gray, and sand. . . . .	23 500
		Sand. . . . .	11 249	Sand. . . . .	10 510
		Shale, gray. . . . .	7 256	Shale, gray. . . . .	3 513
		Shale, gray. . . . .	4 260	Sand. . . . .	5 518
		Sand. . . . .	8 268	Sand. . . . .	4 522
		Shale, gray. . . . .	5 273	Shale, gray. . . . .	8 530
		Sand. . . . .	4 277	Sand. . . . .	5 535
		Shale, gray. . . . .	9 286	Shale, gray. . . . .	8 543
				Sand. . . . .	13 556
				Shale, gray. . . . .	14 570
				Shale, gray, and sand. . . . .	31 621
				Sand. . . . .	9 630
				Shale, gray. . . . .	11 641
				Sand. . . . .	6 647
				Shale, gray. . . . .	10 657
				Sand. . . . .	5 662
				Shale, gray. . . . .	17 679
				Shale, gray, and sand. . . . .	18 697
				Sand. . . . .	9 706
				Shale, gray. . . . .	37 743
				Sand. . . . .	17 760
				Shale, brown. . . . .	5 765
				Shale, brown and gray, and sand. . . . .	60 825
				Coal. . . . .	5 830
				Shale, gray. . . . .	41 871
				Sand. . . . .	7 878
				Shale, gray and brown. . . . .	33 911
				Coal. . . . .	4 915
				Shale, gray. . . . .	5 920
				<b>Dawson Formation (lower part):</b>	
				Sand (Middle conglomerate, 920 to 1,150 feet.)	6 926
				Shale, gray. . . . .	11 937
				Sand. . . . .	6 943
				Shale, gray. . . . .	9 952
				Sand. . . . .	6 958
				Shale, gray. . . . .	14 972
				Sand. . . . .	17 989
				Shale, gray, and sand. . . . .	25 1,014
				Sand. . . . .	12 1,026
				Shale, gray. . . . .	30 1,076
				Sand. . . . .	32 1,108
				Shale, gray. . . . .	15 1,123
				Sand. . . . .	14 1,137
				Sand and gray shale. . . . .	13 1,150
				Shale, gray. . . . .	50 1,200
				<b>Lower conglomerate:</b>	
				Sand. . . . .	16 1,216
				Shale, gray. . . . .	7 1,222
				Sand. . . . .	9 1,222
				Shale, gray. . . . .	19 1,251
				Lime, sandy. . . . .	7 1,258
				Shale, gray. . . . .	5 1,263
				Sand. . . . .	3 1,266
				Shale, gray, and sandy lime. . . . .	14 1,280
				Sand. . . . .	9 1,289
				Shale, gray. . . . .	29 1,318
				Sand. . . . .	18 1,336
				Shale, gray, and sand. . . . .	26 1,362
				Sand. . . . .	9 1,371
				Shale, gray. . . . .	42 1,413
				Sand. . . . .	16 1,429
				Shale, gray. . . . .	30 1,459
				Sand. . . . .	6 1,465
				Shale, gray. . . . .	16 1,481
				Lime, sandy. . . . .	2 1,483
				Shale, gray. . . . .	13 1,496
				Sand. . . . .	19 1,515
				Shale, gray. . . . .	18 1,533
				Sand. . . . .	27 1,560
				Shale, gray, and sand. . . . .	42 1,602
				Shale, gray. . . . .	6 1,608
				<b>CG-67-28aad. Alt. 6,494.3 ft.</b>	
				<b>Dawson Formation (upper part):</b>	
				Sand and yellow clay. . . . .	23 23
				Sandstone, blue. . . . .	18 41
				Sand, brown. . . . .	5 46
				Shale, blue. . . . .	2 48
				Sandstone, blue and brown. . . . .	48 96

Table 3.--Logs of wells and test holes--Continued

	Thick- ness	Depth		Thick- ness	Depth		Thick- ness	Depth
<b>CS-67-1899ad.--Continued</b>								
Shale, gray and brown . . . . .	64	160						
Sand. . . . .	21	181						
Shale, gray . . . . .	13	194						
Sand. . . . .	8	202						
Shale, gray and brown . . . . .	17	219						
Sand. . . . .	9	228						
Shale, gray . . . . .	7	235						
Sand. . . . .	4	239						
Shale, gray . . . . .	16	255						
Sand. . . . .	4	259						
Shale, gray . . . . .	12	271						
Sand. . . . .	97	368						
Shale, brown gray and yellow. . . . .	10	378						
Sand. . . . .	15	393						
Shale, gray and brown . . . . .	10	403						
Sand. . . . .	21	424						
Shale, yellow and brown . . . . .	8	432						
Sand. . . . .	34	466						
Shale, gray . . . . .	4	470						
Sand. . . . .	36	506						
<b>CS-68-1abcc. Alt. 5,880.4 ft.</b>								
Post-Piney Creek alluvium and Broadway Alluvium, undiffer- entiated:								
Sand and clay . . . . .	3	3						
Sand and gravel . . . . .	3	6						
Louviere Alluvium:								
Clay, gray. . . . .	12	18						
Sand and gravel . . . . .	28	44						
Dawson Formation (upper part):								
Sandstone . . . . .	2	46						
<b>CS-68-1cadd. Alt. 7,025 ft.</b>								
Precambrian (granite):								
Granite, decomposed . . . . .	35	35						
Granite, hard, at 35 feet								

Table 4.--Measurements of the water level in wells  
(Water levels are given in feet below, or (+) above land-surface datum)

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>CI-66-11cddd.</u>			<u>CI-66-18cddc.</u> --Continued			<u>CI-67-14dcdc.</u> --Continued		
Oct. 5, 1955	22.54		Jan. 5, 1960	20.62		Oct. 3, 1955	5.14	
Nov. 4	23.11		Feb. 11	20.24		Nov. 4	5.41	
Nov. 30	23.14		Jan. 12, 1961	20.99		Dec. 1	5.57	
Jan. 4, 1956	23.33		Apr. 27	21.65		Jan. 4, 1956	5.32	
Feb. 3	21.64		Jul. 7	21.13		Feb. 3	5.14	
Mar. 2	22.52		Jan. 5, 1962	20.69		Mar. 2	5.04	
Apr. 2	22.69		Apr. 15	21.53		Apr. 2	5.00	
May 1	22.94		Oct. 1	19.03		June 8	1.52	
July 10	23.32		Jan. 23, 1963	20.39		July 6	1.91	
Oct. 2	23.66					July 30	5.10	
Nov. 6	24.55					Sept. 4	5.12	
Dec. 4	24.72		<u>CI-66-10cddc.</u>			Oct. 2	5.67	
Jan. 8, 1957	24.97		Sept. 29, 1955	27.69		Nov. 6	5.85	
Feb. 5	23.25		Nov. 11	28.99		Dec. 4	5.65	
Mar. 5	22.90		Nov. 30	24.29		Jan. 8, 1957	5.35	
May 6	23.41		Jan. 4, 1956	22.95		Feb. 5	5.17	
June 4	21.00		Feb. 3	27.17		Mar. 5	4.92	
July 15	20.76		Mar. 2	23.29		May 6	4.56	
Aug. 6	20.59		Apr. 2	23.46		June 4	1.02	
Oct. 2	21.48		May 1	24.26		July 15	2.69	
Nov. 4	22.66		June 8	27.04		Aug. 6	2.32	
Dec. 5	23.29		July 6	28.04		Sept. 3	2.38	
Jan. 13, 1958	21.93		July 10	28.73		Oct. 2	2.42	
Feb. 10	22.44		Sept. 4	27.35		Nov. 5	4.31	
Mar. 3	22.59		Oct. 2	26.60		Dec. 5	2.49	
Apr. 11	22.21		Nov. 6	27.60		Jan. 13, 1958	2.84	
May 5	22.55		Dec. 4	23.96		Feb. 10	1.01	
May 20	21.97		Jan. 8, 1957	22.96		Mar. 3	3.16	
Nov. 5	23.11		Feb. 5	23.10		Apr. 11	3.26	
Dec. 11	23.95		Mar. 5	23.20		May 5	3.19	
Jan. 21, 1959	23.11		May 6	21.74		May 20	2.59	
Mar. 18	22.26		June 4	19.78		June 24	2.90	
Apr. 24	22.42		July 15	18.54		July 14	2.98	
June 1	22.01		Aug. 6	19.85		Aug. 19	4.13	
Aug. 13	23.12		Sept. 2	21.53		Mar. 18, 1959	4.10	
Sept. 18	22.90		Oct. 2	19.15		June 23	3.29	
Nov. 26	23.18		Nov. 5	19.54		Dec. 9	5.00	
Dec. 4	23.61		Dec. 5	19.92		Jan. 5, 1960	5.13	
Jan. 5, 1960	23.87		Jan. 13, 1958	20.78		Feb. 11	5.17	
Feb. 11	22.59		Feb. 10	21.38		Apr. 10, 1962	3.58	
Mar. 23	22.29		Mar. 3	21.83		Oct. 19	3.73	
Apr. 30	22.53		Apr. 11	22.34		Jan. 23, 1963	4.14	
May 25	21.12		May 5	22.67				
June 24	21.52					<u>CI-67-16dbdc.</u>		
Sept. 30	22.65		<u>CI-67-14dcdc.</u>			Aug. 23, 1955	54.64	
Jan. 12, 1961	24.38		Aug. 23, 1955	11.70		Sept. 1	54.60	
Apr. 27	22.75		July 12, 1957	9.75		Oct. 3	55.22	
Sept. 21	21.25		Aug. 16	9.95		Nov. 4	53.64	
Jan. 5, 1962	23.48		Sept. 16	10.24		Nov. 30	51.94	
Apr. 11	22.00		Nov. 12	10.38		Jan. 4, 1956	50.82	
Oct. 3	22.74		Dec. 11	10.68		Feb. 3	51.16	
Jan. 23, 1963	23.73		Jan. 16, 1958	10.63		Mar. 2	51.57	
			Feb. 19	11.00		Apr. 2	52.03	
			Mar. 12	10.97		May 1	52.40	
			Apr. 22	10.52		June 8	52.75	
			May 20	9.20		July 6	52.83	
			June 24	10.00		July 30	53.34	
			July 14	10.31		Sept. 4	52.88	
			Aug. 19	11.33		Oct. 2	53.52	
			Sept. 24	11.14		Nov. 6	53.74	
			Nov. 5	11.86		Dec. 4	53.28	
			Nov. 20	11.93		Jan. 8, 1957	59.25	
			Dec. 11	11.84		Feb. 5	52.57	
			Jan. 21, 1959	11.85		Mar. 5	52.76	
			Mar. 18	11.78		May 6	53.12	
			Apr. 24	11.30		June 4	52.17	
			June 1	10.77		July 15	50.27	
			June 23	10.43		Aug. 6	54.21	
			July 19	10.04		Sept. 3	46.39	
			Aug. 13	10.08		Oct. 2	46.49	
			Sept. 18	11.96		Nov. 5	53.36	
			Oct. 26	12.28		Dec. 5	47.19	
			Dec. 4	12.24		Jan. 13, 1958	48.49	
			Jan. 5, 1960	12.18		Feb. 10	49.31	
			Feb. 11	12.53		Mar. 3	49.82	
			Mar. 23	11.74		Apr. 11	50.73	
			Apr. 30	11.26		May 5	51.29	
			May 25	10.85		May 20	51.42	
			Aug. 29	12.13		June 24	53.38	
			Sept. 30	12.26		Nov. 5	52.31	
			Nov. 10	12.39		Dec. 11	51.66	
			Dec. 9	12.43		Jan. 21, 1959	51.89	
			Jan. 12, 1961	12.50		Mar. 18	52.42	
			Feb. 24	12.61		Apr. 24	52.75	
			Mar. 3	12.60		June 1	53.08	
			Mar. 5	12.45		June 23	51.15	
			Mar. 14	12.41		Aug. 13	51.55	
			Mar. 19	12.25		Sept. 18	51.75	
			Apr. 27	12.21		Oct. 26	51.34	
			July 7	11.39		Dec. 9	52.03	
			July 21	11.81		Jan. 5, 1960	52.61	
			July 30	12.05		Feb. 11	52.92	
			Aug. 8	11.60		Apr. 30	53.85	
			Sept. 21	11.06		May 25	53.96	
			Jan. 5, 1962	11.55		June 24	51.20	
			Apr. 10	11.26		Sept. 30	52.75	
			Oct. 3	12.06		Jan. 12, 1961	52.98	
			Jan. 23, 1963	11.67		Apr. 27	54.08	
						July 7	51.64	
			<u>CI-67-14dcdc.</u>			Sept. 23	51.04	
			Aug. 23, 1955	5.13				
			Sept. 1	5.25				
<u>CI-66-18cddc.</u>								
Sept. 29, 1955	21.08							
Nov. 4	21.07							
Nov. 30	21.63							
Jan. 4, 1956	22.29							
Feb. 3	22.79							
Mar. 2	23.20							
Apr. 2	23.62							
May 1	23.15							
June 8	21.37							
July 6	20.34							
July 30	16.72							
Sept. 4	20.08							
Oct. 2	21.46							
Nov. 5	21.39							
Dec. 4	22.29							
Jan. 8, 1957	22.76							
Feb. 5	23.16							
Mar. 5	23.50							
May 6	23.98							
June 4	22.79							
July 15	20.24							
Aug. 6	17.70							
Sept. 2	17.03							
Oct. 2	16.06							
Nov. 4	14.64							
Dec. 5	16.97							
Jan. 13, 1958	18.06							
Feb. 10	18.75							
Mar. 3	19.19							
Apr. 11	19.88							
May 5	19.96							
May 20	19.50							
June 24	17.76							
July 14	17.20							
Aug. 19	16.70							
Sept. 24	16.93							
Nov. 5	17.95							
Dec. 11	19.00							
Jan. 20, 1959	19.06							
Mar. 18	21.09							
Apr. 24	21.44							
June 1	20.65							
June 23	19.43							
Aug. 13	17.76							
Sept. 18	18.04							
Oct. 26	18.97							
Dec. 9	20.03							



Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>C2-67-10cddd.</u>			<u>C2-67-11cddb.</u> --Continued			<u>C2-67-20cddc.</u> --Continued		
Aug. 19, 1955	25.63		Apr. 11, 1962	17.16		July 14, 1958	26.27	
Sept. 1	25.75		Oct. 2	14.41		Aug. 19	27.04	
Oct. 3	25.64		Jan. 23, 1963	14.79		Sept. 24	27.50	
Nov. 4	25.54					Nov. 5	27.48	
Nov. 10	25.46		<u>C2-67-17bacb.</u>			Dec. 11	27.11	
Jan. 4, 1956	25.10		Oct. 10, 1955	8.58		Jan. 21, 1959	27.15	
Feb. 3	24.98		Nov. 14	8.73		Mar. 18	27.17	
Mar. 2	25.15		Dec. 1	9.94		Apr. 24	27.30	
May 2	25.22		Jan. 4, 1956	9.14		June 1	26.85	
July 6	25.19		Feb. 3	9.35		June 23	27.34	
July 30	25.57		Mar. 2	9.52		Aug. 13	28.00	
Sept. 4	25.08		Apr. 3	9.78		Sept. 18	28.50	
Oct. 2	25.33		May 2	10.03		Oct. 26	27.63	
Nov. 6	25.19		June 5	9.66		Dec. 4	27.14	
Dec. 4	25.11		July 6	8.59		Jan. 5, 1960	27.18	
Jan. 8, 1957	25.18		July 10	8.37		Feb. 11	27.29	
Feb. 5	25.23		Sept. 4	8.65		Apr. 10	27.21	
Mar. 5	25.37		Oct. 2	9.22		May 25	26.81	
May 6	25.52		Nov. 6	9.35		June 24	26.67	
June 4	24.02		Dec. 4	9.30		Sept. 10	28.34	
July 15	23.18		Jan. 8, 1957	9.55		Jan. 12, 1961	28.13	
Aug. 6	23.00		Feb. 5	9.73		Apr. 24	27.50	
Sept. 3	21.32		Mar. 5	9.93		July 7	27.25	
Oct. 2	21.01		May 6	9.49		Sept. 23	27.24	
Nov. 5	20.24		June 4	9.54		Jan. 5, 1962	26.87	
Dec. 5	21.42		July 15	8.49		Apr. 10	26.82	
Jan. 13, 1958	21.95		Aug. 6	8.01		Oct. 2	28.11	
Feb. 10	22.14		Sept. 3	8.54		Jan. 23, 1963	27.69	
Mar. 3	22.27		Oct. 2	8.82				
Apr. 11	23.13		Nov. 5	9.13		<u>C2-68-20dbcb.</u>		
May 5	23.28		Dec. 5	9.37		Mar. 4, 1957	432.05	
May 20	23.30		Jan. 13, 1958	9.64		Apr. 16	436.55	
June 24	23.08		Feb. 10	9.82		June 3	387.80	
July 14	23.34		Mar. 3	9.87		Nov. 10, 1960	482.50	
Aug. 19	23.49		Apr. 11	10.22				
Dec. 11	23.19		May 5	10.40		<u>C2-68-16bccc.</u>		
Jan. 21, 1959	23.54		May 20	11.36		June 1, 1959	19.43	
Mar. 18	23.86		June 24	10.96		June 23	19.79	
Apr. 24	24.03		July 14	10.75		Aug. 13	20.19	
June 1	23.72		Aug. 19	10.55		Sept. 18	18.25	
June 23	23.12		Sept. 24	10.82		Oct. 27	18.77	
Aug. 13	23.40		Dec. 11	9.92		Dec. 9	20.27	
Sept. 18	23.25		Jan. 21, 1959	10.40		Jan. 5, 1960	20.70	
Oct. 26	23.36		Mar. 18	10.95		Feb. 11	20.96	
Dec. 9	23.39		Apr. 24	11.19		Jan. 10, 1961	20.44	
Jan. 5, 1960	23.83		June 1	11.00		Jan. 5, 1962	20.36	
Feb. 11	23.99		June 23	10.40		Apr. 9	21.76	
Mar. 28	24.34		Aug. 13	9.89		Oct. 3	18.32	
Apr. 30	23.84		Sept. 18	10.07		Jan. 23, 1963	20.50	
May 25	23.32		Oct. 27	10.28				
June 24	22.37		Dec. 9	10.61		<u>C2-68-36cbb.</u>		
Sept. 30	23.26		Jan. 5, 1960	10.85		Oct. 10, 1955	17.13	
Jan. 12, 1961	23.75		Feb. 11	10.85		Nov. 4	17.63	
Apr. 27	24.60		Apr. 30	11.34		Dec. 1	18.28	
July 7	23.66		May 25	11.36		Jan. 4, 1956	19.12	
Jan. 5, 1962	23.40		June 24	10.82		Feb. 3	19.44	
Apr. 11	24.53		Sept. 30	10.23		Mar. 2	19.67	
Oct. 2	23.41		Jan. 12, 1961	10.59		Apr. 3	19.88	
Jan. 23, 1963	23.14		Apr. 27	11.40		May 2	20.41	
			July 10	11.30		June 5	19.61	
			Sept. 23	9.60		July 6	18.35	
			Jan. 5, 1962	10.00		July 30	17.45	
			Apr. 10	11.07		Sept. 4	18.06	
			Oct. 2	9.68		Oct. 2	18.64	
			Jan. 23, 1963	10.17		Nov. 5	19.43	
						Dec. 4	19.68	
<u>C2-67-11cddb.</u>			<u>C2-67-20cddc.</u>			Jan. 8, 1957	19.66	
Apr. 1, 1956	37.65		Aug. 9, 1955	29.43		Feb. 5	20.32	
June 5	36.94		Aug. 11	29.27		Mar. 5	19.48	
July 6	37.28		Oct. 3	28.71		June 4	19.30	
July 30	37.38		Nov. 4	28.34		July 15	18.42	
Sept. 4	36.13		Dec. 1	27.94		Aug. 6	18.36	
Oct. 2	36.34		Jan. 4, 1956	27.94		Sept. 3	18.04	
Nov. 6	37.97		Feb. 3	28.02		Oct. 2	18.11	
Dec. 4	37.40		Mar. 2	28.10		Nov. 5	18.70	
Jan. 7, 1957	37.11		Apr. 2	28.21		Dec. 5	18.94	
Feb. 5	37.28		May 2	28.34		Jan. 13, 1958	19.56	
Mar. 5	37.73		June 4	28.57		Feb. 10	19.81	
May 4	38.08		July 6	29.45		Mar. 3	19.79	
June 4	36.90		July 30	29.70		May 5	20.28	
July 15	33.75		Sept. 4	29.10		May 20	20.35	
Aug. 6	31.32		Oct. 2	29.57		June 24	18.57	
Sept. 2	28.76		Nov. 6	29.69		July 14	18.12	
Oct. 2	28.94		Dec. 4	29.10		Aug. 19	17.95	
Nov. 5	29.59		Jan. 8, 1957	28.73		Sept. 24	18.22	
Dec. 5	30.78		Feb. 5	28.78		Dec. 11	18.75	
Jan. 13, 1958	32.62		Mar. 5	28.78		Jan. 21, 1959	19.16	
Feb. 10	33.69		May 6	28.48		Mar. 18	19.78	
Mar. 3	34.37		June 4	26.50		Apr. 24	19.88	
Apr. 11	35.52		July 15	26.04				
May 5	35.86		Aug. 6	25.89		<u>C2-65-2dcdd.</u>		
May 20	35.78		Sept. 3	25.79		Nov. 5, 1956	21.95	
May 24	34.64		Oct. 2	26.19		Dec. 4	22.24	
June 14	34.13		Nov. 5	26.39		Jan. 7, 1957	22.57	
July 19	33.27		Dec. 5	26.15		Feb. 5	22.75	
Aug. 19	34.31		Jan. 13, 1958	26.47		Mar. 5	22.94	
Dec. 11	35.54		Feb. 10	26.69		May 4	22.88	
Jan. 21, 1959	36.84		Mar. 3	26.82		June 4	17.52	
Mar. 18	37.29		Apr. 11	27.00		July 15	19.71	
Apr. 24	37.25		May 5	27.15		Aug. 1	16.40	
June 1	36.51		May 20	26.90				
June 23	36.51		June 24	26.20				
Sept. 18	34.93							
Oct. 26	34.53							
Dec. 9	35.59							
Jan. 5, 1960	36.35							
Feb. 11	37.12							
Jan. 12, 1961	36.29							
Apr. 27	38.17							

Table 4. --Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Water level
<u>CJ-65-7dcdg.</u> --Continued			<u>CJ-67-17ddb.</u> --Continued			<u>CJ-68-7dccb.</u>	
Aug. 30, 1957	18.60		Feb. 12, 1960	9.34		Dec. 4, 1956	160.78
Oct. 2	19.56		Jan. 12, 1961	5.63		Jan. 3, 1957	158.81
Nov. 4	19.99		Apr. 27	5.58		Feb. 5	161.69
Dec. 5	20.37					Mar. 4	161.20
Jan. 13, 1958	20.74		<u>CJ-67-18abcd.</u>			Aug. 6	161.91
Mar. 3	21.14		Feb. 19, 1958	6.22		Sept. 3	161.79
Apr. 11	21.36		Mar. 12	6.35		Oct. 15	161.37
<u>CJ-67-4bbbb.</u>			Apr. 22	6.59		Nov. 15	161.49
Sept. 12, 1955	51.61		May 20	5.52		Dec. 13	162.10
Oct. 3	51.73		June 24	5.65		Jan. 18, 1958	161.90
Nov. 4	51.91		July 14	5.69		Feb. 19	162.07
Nov. 30	52.04		Aug. 19	6.09		Mar. 12	161.40
Jan. 4, 1956	52.21		Nov. 5	6.64		Apr. 22	161.35
Feb. 3	52.08		Dec. 11	6.67		May 20	161.88
Mar. 2	51.42		Mar. 3, 1959	6.50		June 24	162.48
Apr. 2	51.22		Mar. 18	6.25		July 14	161.61
May 1	51.32		Apr. 24	6.21		Aug. 28	162.36
June 4	50.42		June 1	6.05		Nov. 10	162.53
July 6	49.58		June 23	6.06		Dec. 10	163.00
July 10	49.25		Aug. 13	6.66		Jan. 21, 1959	164.35
Sept. 4	48.62		Sept. 18	6.95		Mar. 18	163.24
Oct. 2	49.28		Oct. 27	6.64		Apr. 24	161.64
Nov. 5	50.20		Dec. 9	6.65		June 1	161.85
Dec. 4	50.52		Feb. 12, 1960	7.19		June 23	162.69
Jan. 7, 1957	50.26		Mar. 28	6.64		Aug. 13	163.60
Feb. 5	49.80		Apr. 30	6.69		Sept. 18	161.20
Mar. 5	48.59		May 25	6.84		Oct. 26	161.12
May 4	48.91		June 24	7.01		Dec. 9	152.27
June 4	49.04		Oct. 4	7.68		Jan. 5, 1960	161.41
July 15	48.00		Jan. 13, 1961	7.67		Mar. 28	161.95
Aug. 6	47.72		Apr. 27	8.32		Apr. 20	162.90
Sept. 2	47.21		July 10	7.19		May 25	161.48
Oct. 2	46.79		Sept. 23	6.68		June 24	162.35
Nov. 6	46.30		Jan. 5, 1962	7.05		Sept. 30	161.93
Dec. 5	45.99		Apr. 10	7.11		Jan. 13, 1961	162.30
Jan. 13, 1958	45.68		Oct. 3	8.45		Apr. 24	160.88
Feb. 10	45.53		Jan. 23, 1963	8.45		July 11	163.01
Mar. 3	45.43		<u>CJ-67-18acd.</u>			Sept. 23	160.69
May 5	45.03		Mar. 12, 1958	299.25		Jan. 5, 1962	160.51
May 20	45.00		Apr. 22	299.53		Apr. 10	161.34
June 24	44.86		Apr. 22	299.70		Oct. 2	160.50
July 14	44.90		May 20	301.20		Jan. 23, 1963	159.60
Aug. 19	45.05		June 24	303.0		<u>CJ-68-7dccb2.</u>	
Sept. 24	44.69		July 17	305.1		July 26, 1956	2.05
Nov. 5	44.60		Aug. 19	309.5		Aug. 31	.65
Dec. 11	44.45		Mar. 18, 1959	261.3		Sept. 14	1.60
Jan. 21, 1959	44.00		Apr. 24	271.4		Oct. 1	1.28
Mar. 18	43.88		June 1	289.80		Oct. 31	1.17
Apr. 24	43.74		June 23	309.0		Apr. 10, 1962	1.49
June 1	44.75		Aug. 13	311.5		<u>CJ-68-13bdd.</u>	
June 23	45.56		<u>CJ-67-23cbcb.</u>			Oct. 31, 1956	25.31
Aug. 23	47.59		Oct. 23, 1956	21.22		Dec. 4	25.61
Sept. 18	48.80		Oct. 31	21.24		Jan. 3, 1957	25.79
Oct. 26	49.14		Dec. 4	21.36		Feb. 5	25.88
Dec. 4	46.89		Jan. 3, 1957	21.46		Mar. 4	25.89
Jan. 5, 1960	45.81		Feb. 5	21.52		Apr. 16	25.88
Feb. 12	46.48		Mar. 4	21.59		June 3	24.88
Mar. 28	46.58		June 3	22.20		July 15	25.79
Apr. 30	46.09		July 15	21.36		Aug. 6	24.20
May 23	45.68		Aug. 7	21.27		Sept. 9	23.84
June 24	44.70		Sept. 9	21.16		Oct. 4	24.01
Sept. 30	45.56		Oct. 11	21.03		Nov. 15	24.14
Jan. 12, 1961	44.52		Nov. 15	20.96		Dec. 12	24.31
Apr. 21	46.47		Dec. 12	20.80		Jan. 18, 1958	26.65
July 10	45.67		Jan. 16, 1958	20.83		Feb. 19	24.75
Sept. 23	45.49		Feb. 18	20.79		Mar. 12	24.66
Jan. 5, 1962	44.72		Mar. 12	20.73		Apr. 22	24.31
Apr. 11	44.74		Apr. 25	20.81		May 20	24.40
Oct. 2	46.07		May 20	20.73		Aug. 19	24.34
Jan. 23, 1963	48.59		June 24	23.00		Nov. 5	23.97
<u>CJ-67-17ddb.</u>			July 14	20.72		Jan. 20, 1959	24.50
Oct. 23, 1956	12.47		Aug. 19	20.93		Mar. 18	24.64
Dec. 4	12.43		Sept. 24	21.57		Apr. 24	24.37
Jan. 3	12.61		Dec. 11	21.41		June 1	23.95
Mar. 4, 1957	12.52		Jan. 20, 1959	20.92		Aug. 13	24.08
June 3	8.01		Mar. 18	21.02		Sept. 18	23.68
July 15	8.08		June 1	21.30		Oct. 26	23.72
Aug. 6	7.98		June 23	21.32		Dec. 9	23.84
Sept. 9	8.20		Aug. 13	21.11		Jan. 5, 1960	24.39
Oct. 15	8.36		Sept. 18	21.15		Feb. 12	24.31
Nov. 15	8.43		Oct. 27	21.19		Mar. 28	24.25
Dec. 12	8.43		Dec. 9	21.21		Apr. 30	24.35
Jan. 18, 1958	8.40		Jan. 6, 1960	21.29		May 25	24.13
Feb. 18	8.34		Feb. 12	21.33		Sept. 10	23.54
Mar. 12	8.52		Mar. 28	21.92		Jan. 13, 1961	23.97
Apr. 22	8.75		Apr. 30	21.44		Apr. 27	24.28
May 20	8.42		May 25	21.90		July 11	23.98
June 24	8.33		May 25	21.69		Sept. 23	23.37
July 14	8.50		June 24	21.70		Jan. 5, 1962	23.91
Aug. 19	8.58		Oct. 4	21.69		Apr. 10	24.33
Mar. 18, 1959	9.35		Jan. 13, 1961	21.63		Oct. 2	23.92
Apr. 24	9.35		Apr. 27	22.54		Jan. 23, 1963	24.61
June 23	9.44		July 10	24.36		<u>CJ-68-14cdab.</u>	
Aug. 13	10.06		Sept. 23	21.55		May 25, 1960	14.05
Sept. 18	10.54		Jan. 5, 1962	21.40		June 24	14.01
Oct. 27	10.42		Apr. 15	21.62		Sept. 30	11.94
Dec. 9	10.17		Oct. 2	21.83		Jan. 23, 1961	13.75
Jan. 5, 1960	6.77		Jan. 23, 1963	22.03		Apr. 27	12.81

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>CJ-68-14cdab.</u> --Continued			<u>CJ-68-14cdad2.</u> --Continued			<u>CJ-69-15add42.</u> --Continued		
Sept. 23, 1961		9.41	July 11, 1961		13.39	Jan. 18, 1958		100.75
Jan. 5, 1962		10.61	Sept. 22		13.54	Feb. 14		101.41
Apr. 4		11.50	Jan. 9, 1962		13.55	Mar. 12		102.14
Oct. 2		10.67	Apr. 2		13.80	Apr. 22		102.71
Jan. 23, 1963		12.54	Oct. 1		15.11	May 20		103.59
<u>CJ-68-14cdab.</u>			Jan. 21, 1963		15.80	June 18		104.86
May 26, 1960		517.9	<u>CJ-69-13cbab.</u>			July 17		106.98
June 24		511.4	Dec. 13, 1957		5.14	Aug. 26		110.25
Sept. 30		515.2	Jan. 18, 1958		4.90	Nov. 10		114.25
Jan. 23, 1961		510.6	Feb. 1		5.83	Dec. 10		113.89
Apr. 27		504.2	Mar. 12		5.60	Jan. 21, 1959		113.43
July 11		510.1	Apr. 22		5.24	Mar. 18		113.17
Sept. 23		453.7	May 20		4.25	Apr. 24		113.79
Jan. 5, 1962		508.0	June 18		4.15	June 1		114.90
Apr. 4		510.0	July 17		3.98	June 23		116.30
Oct. 2		508.4	Aug. 26		3.90	Aug. 13		120.17
Jan. 23, 1963		510.1	Nov. 10		4.70	Sept. 18		122.46
<u>CJ-68-21bdac.</u>			Mar. 18, 1959		5.66	Oct. 26		122.94
Sept. 7, 1956		10.4	June 23		4.09	Dec. 4		122.70
Oct. 1		10.81	Oct. 26		4.68	Jan. 5, 1960		122.73
Oct. 31		10.55	Dec. 4		5.14	Feb. 11		123.09
Dec. 4		10.98	Jan. 5, 1960		5.55	Mar. 28		123.50
Jan. 3, 1957		10.63	Feb. 11		5.83	Apr. 30		124.59
Feb. 5		10.45	<u>CJ-69-14aadd.</u>			May 25		125.60
Mar. 4		11.00	Aug. 31, 1956		5.06	June 24		127.65
Apr. 16		10.57	Sept. 14		5.23	Sept. 30		133.77
June 3		29.48	Oct. 1		5.18	Jan. 13, 1961		133.55
July 15		31.62	Oct. 31		5.21	May 5		134.60
Aug. 6		31.06	Dec. 4		4.95	July 10		137.12
Sept. 17		10.76	Jan. 3, 1957		5.03	Sept. 23		140.56
Oct. 15		10.82	Feb. 5		5.22	Jan. 5, 1962		141.54
Nov. 15		10.46	Mar. 4		4.95	Apr. 9		142.74
Dec. 12		11.03	Apr. 16		3.65	Oct. 2		152.03
Jan. 18, 1958		10.11	June 3		4.02	Jan. 23, 1963		152.87
Feb. 19		10.18	July 10		4.16	<u>CJ-69-15dbbc.</u>		
Mar. 12		10.26	Aug. 6		4.44	Dec. 13, 1957		6.01
Apr. 22		10.77	Sept. 9		4.23	Jan. 18, 1958		6.60
May 20		10.08	Oct. 15		4.85	Feb. 14		6.74
June 24		29.89	Nov. 15		4.74	Mar. 12		6.89
July 14		29.79	Dec. 13		5.05	Apr. 22		6.30
Aug. 19		10.43	Jan. 18, 1958		5.22	May 20		5.00
Nov. 6		10.03	Feb. 19		5.05	July 17		4.41
Dec. 11		10.00	Mar. 12		4.80	Aug. 26		5.08
Jan. 20, 1959		29.90	Apr. 22		4.83	Dec. 10		7.08
Mar. 18		29.89	May 20		3.92	Jan. 21, 1959		8.94
Apr. 24		10.38	June 18		4.42	Mar. 18		6.45
June 1		29.35	July 17		4.70	Apr. 24		5.56
June 23		29.26	Aug. 28		5.05	June 1		3.50
Aug. 13		10.51	Sept. 25		5.25	June 23		3.75
Sept. 18		29.72	Dec. 10		5.29	Aug. 13		4.46
Oct. 26		29.70	Mar. 18, 1959		4.94	Sept. 18		6.13
Dec. 4		28.97	Apr. 24		4.53	Oct. 26		6.27
Jan. 6, 1960		28.78	June 1		4.22	Dec. 4		6.28
Feb. 12		29.09	June 23		4.69	Jan. 5, 1960		7.19
Feb. 23		29.10	Aug. 13		4.90	Feb. 11		7.93
Apr. 30		29.44	Sept. 18		4.77	Mar. 28		6.94
May 25		29.94	Oct. 26		4.87	Apr. 30		7.12
June 24		28.91	Dec. 4		5.03	May 25		6.36
Sept. 30		29.42	Jan. 5, 1960		5.24	June 24		5.83
Jan. 13, 1961		28.35	Mar. 28		4.62	Sept. 30		6.57
Apr. 22		29.18	Apr. 30		4.40	Jan. 12, 1961		7.44
July 11		28.95	May 25		4.56	Apr. 24		5.68
Sept. 23		28.54	June 24		4.55	July 10		4.29
Jan. 5, 1962		28.44	Sept. 30		5.15	Jan. 5, 1962		7.55
Apr. 10		28.69	Jan. 13, 1961		5.42	Apr. 9		7.79
Oct. 3		28.57	Apr. 24		5.22	Oct. 19		5.62
Jan. 23, 1963		28.43	July 10		4.72	Jan. 27, 1963		8.23
<u>CJ-68-14cdad.</u>			Sept. 23		4.67	<u>CJ-69-16cccd.</u>		
Oct. 23, 1959		183.09	Jan. 5, 1962		5.46	Dec. 13, 1957		4.97
Dec. 9		182.76	Apr. 9		5.20	Jan. 18, 1958		5.33
Jan. 6, 1960		182.51	Oct. 2		5.32	Feb. 14		5.18
Feb. 12		182.79	Jan. 23, 1963		5.78	Mar. 12		5.34
Mar. 28		194.60	<u>CJ-69-14cdcc.</u>			Apr. 22		5.15
May 10		204.94	Dec. 13, 1957		5.91	May 20		4.30
May 25		215.65	Jan. 18, 1958		6.49	June 18		4.88
June 27		209.15	Feb. 14		6.65	July 17		4.97
Sept. 30		211.00	Mar. 12		6.60	Aug. 26		5.09
Jan. 23, 1961		206.25	Apr. 22		6.35	Jan. 18, 1959		5.80
May 1		187.30	May 20		4.19	Mar. 18		5.49
July 11		193.11	June 18		4.70	Apr. 24		4.50
Sept. 22		198.88	July 17		4.35	June 1		4.49
Jan. 9, 1962		207.25	Aug. 26		4.10	June 23		3.89
Apr. 2		212.21	Mar. 18, 1959		6.60	Aug. 13		3.25
Oct. 1		211.37	June 23		4.64	Sept. 18		5.50
Jan. 21, 1963		208.80	Oct. 26		5.69	Oct. 26		5.38
<u>CJ-68-14cdad2.</u>			<u>CJ-69-15add42.</u>			Dec. 4		5.41
Oct. 23, 1959		13.30	Jan. 28, 1957		85.71	Jan. 5, 1960		5.63
Dec. 19		13.14	Feb. 5		86.12	Feb. 11		5.86
Jan. 6, 1960		13.22	Mar. 4		86.24	<u>CJ-69-16ddcb.</u>		
Feb. 12		13.51	Apr. 16		87.45	Dec. 13, 1957		5.48
Mar. 28		13.48	June 3		88.45	Jan. 18, 1958		5.82
May 10		35.09	July 10		91.25	Feb. 14		5.87
May 25		33.77	Aug. 6		93.95	Mar. 12		5.80
June 27		33.68	Sept. 9		96.16	Apr. 22		5.79
Sept. 30		33.32	Oct. 15		98.44	May 20		4.70
Jan. 23, 1961		33.34	Nov. 15		99.05	June 18		5.87
May 1		33.83	Dec. 13		99.85	July 17		4.58
						Aug. 26		5.24

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>C3-69-16ddcb</u> --Continued			<u>C3-69-24cbbc</u> --Continued			<u>C4-67-28acba</u> --Continued		
Mar. 18, 1959	6.07		Jan. 5, 1960	5.83		June 6, 1959	15.80	
June 23	4.88		Feb. 11	5.81		June 24	17.04	
Aug. 13	4.74		Mar. 28	5.08		July 31	19.07	
Sept. 18	6.53		Apr. 30	5.17		Aug. 21	18.61	
Oct. 26	5.93		May 25	4.90		Dec. 9	18.80	
Dec. 4	5.82		June 24	5.54		Jan. 6, 1960	18.25	
Jan. 5, 1960	6.19		Sept. 30	6.73		Feb. 8	18.87	
Feb. 11	6.19		Jan. 12, 1961	6.18		<u>C4-67-28baab2</u>		
Mar. 28	5.15		Apr. 24	5.55		Oct. 27, 1959	25.69	
Apr. 30	5.26		July 10	6.03		Dec. 14	25.24	
May 25	5.81		Sept. 23	5.23		Jan. 6, 1960	25.50	
June 24	5.51		Jan. 5, 1962	5.40		Jan. 16, 1961	16.50	
Sept. 30	7.00		Apr. 9	4.94		Apr. 11, 1962	13.40	
Jan. 12, 1961	6.52		Oct. 19	7.68		<u>C4-67-28baab3</u>		
Apr. 24	6.15		Jan. 23, 1963	7.35		Oct. 27, 1959	23.58	
July 10	5.52		<u>C3-69-10bda</u>			Dec. 14	23.16	
Sept. 23	5.65		Nov. 23, 1956	95.12		Jan. 4, 1960	23.22	
Jan. 5, 1962	6.30		Dec. 4	103.67		Feb. 8	23.30	
Apr. 9	6.14		Jan. 3, 1957	114.09		Apr. 11, 1962	11.70	
Oct. 2	5.95		Feb. 5	122.23		<u>C4-67-28baad</u>		
Jan. 23, 1963	6.59		<u>C4-67-17ddbc</u>			Apr. 15, 1955	22.10	
<u>C3-69-21daac</u>			Oct. 12, 1956	21.56		Oct. 4, 1960	17.27	
Dec. 13, 1957	5.99		Dec. 4	21.04		Jan. 16, 1961	15.48	
Mar. 12, 1958	6.69		Jan. 3, 1957	21.02		Apr. 11, 1962	13.00	
Apr. 22	6.33		Feb. 5	21.25		<u>C4-67-28baba</u>		
May 20	4.91		Apr. 16	21.32		Oct. 27, 1959	22.12	
<u>C3-69-21dbca</u>			June 1	20.58		Dec. 14	22.31	
Dec. 13, 1957	5.47		July 15	25.88		Jan. 6, 1960	22.06	
Jan. 18, 1958	6.67		Aug. 7	19.46		Mar. 23	21.91	
Feb. 14	7.50		Oct. 15	17.19		Apr. 11, 1962	10.30	
Mar. 12	5.84		Nov. 15	16.75		<u>C4-67-28baba2</u>		
May 20	5.42		Dec. 12	16.32		Oct. 9, 1959	22.21	
June 18	9.32		Jan. 16, 1958	16.24		Oct. 27	21.65	
July 17	6.93		Feb. 18	16.06		Dec. 14	21.19	
Aug. 26	3.82		Mar. 13	16.00		Jan. 6, 1960	21.34	
Nov. 10	5.44		Apr. 25	16.00		Feb. 8	21.36	
<u>C3-69-23cbda</u>			June 20	15.32		Mar. 23	21.13	
Sept. 30, 1957	13.78		Mar. 17, 1959	14.55		Apr. 27	20.29	
Oct. 15	13.47		Apr. 27	14.70		May 25	18.34	
Nov. 15	13.18		June 6	16.09		June 24	20.70	
Dec. 13	13.18		July 31	15.16		Oct. 4	14.48	
Jan. 18, 1958	13.27		Oct. 9	16.59		Jan. 16, 1961	13.09	
Feb. 19	13.31		Oct. 27	15.82		Apr. 28	12.18	
Mar. 12	13.01		Dec. 9	15.94		July 10	10.50	
Apr. 22	13.38		Jan. 6, 1960	16.33		Jan. 6, 1962	10.48	
May 20	12.57		Feb. 8	16.42		Apr. 11	6.90	
May 19	13.11		Mar. 23	16.10		<u>C4-67-28baba3</u>		
June 17	13.06		Apr. 27	16.54		July 29, 1959	22.89	
July 17	13.58		May 25	16.07		Oct. 9	21.63	
Aug. 26	13.58		Jan. 16, 1961	13.68		Oct. 27	20.95	
Nov. 10	13.61		Jan. 18, 1962	9.14		Dec. 14	20.64	
Dec. 10	10.50		Apr. 11	9.30		Jan. 6, 1960	20.66	
Jan. 21, 1959	13.68		Oct. 2	9.70		Feb. 8	20.73	
Mar. 18	13.63		Jan. 22, 1963	9.88		Mar. 23	20.59	
Apr. 24	12.97		<u>C4-67-18acca</u>			Apr. 27	19.25	
June 1	12.65		Jan. 28, 1959	21.09		May 25	17.19	
June 23	12.89		Mar. 17	21.22		June 24	19.05	
Aug. 13	14.42		Apr. 27	20.92		Apr. 28, 1961	11.70	
Sept. 18	13.74		June 6	20.64		June 10	10.07	
Oct. 26	12.89		June 23	20.53		Apr. 11, 1962	5.45	
Dec. 8	12.72		July 31	21.16		<u>C4-67-28baba4</u>		
Jan. 5, 1960	12.89		Aug. 21	21.09		July 29, 1959	24.27	
Feb. 11	12.96		Dec. 9	20.39		Oct. 9	22.75	
Mar. 28	12.61		Jan. 6, 1960	20.64		Oct. 27	22.09	
Apr. 30	12.72		July 12	20.99		Dec. 14	21.17	
May 25	12.63		Jan. 22, 1963	18.69		Apr. 27, 1960	21.35	
June 24	13.10		<u>C4-67-18accda</u>			May 25	19.67	
Sept. 30	13.31		Mar. 17, 1959	17.25		June 24	22.70	
Jan. 12, 1961	12.81		Apr. 27	16.98		Apr. 28, 1961	12.60	
Apr. 24	12.70		June 6	16.65		July 10	10.99	
July 10	12.84		June 24	16.99		Apr. 11, 1962	7.35	
Jan. 5, 1962	12.23		July 31	17.19		<u>C4-67-28baba5</u>		
Apr. 9	12.46		Aug. 21	17.10		Oct. 9, 1959	22.62	
Oct. 19	13.67		Oct. 9	16.90		Oct. 27	22.35	
Jan. 23, 1963	13.71		Oct. 27	16.82		Dec. 14	21.61	
<u>C3-69-24cbbc</u>			Dec. 9	16.80		Mar. 23, 1960	21.54	
Sept. 30, 1957	7.09		Jan. 6, 1960	16.85		Apr. 27	20.31	
Oct. 15	6.86		Feb. 12	16.99		May 25	17.91	
Nov. 15	6.42		Mar. 23	16.95		June 24	19.82	
Dec. 13	6.53		Apr. 27	14.51		Apr. 28, 1961	12.61	
Jan. 18, 1958	6.70		May 25	14.74		July 10	10.99	
Feb. 19	6.67		June 24	15.23		Apr. 11, 1962	5.65	
Mar. 12	6.53		Oct. 4	15.59		<u>C4-67-28baba6</u>		
Apr. 22	6.31		Jan. 16, 1961	15.12		Oct. 9, 1959	22.61	
May 20	4.65		Apr. 28	15.28		Oct. 27	22.10	
June 19	5.61		July 10	14.67		Dec. 14	19.68	
Aug. 26	6.66		Oct. 21	13.53		Jan. 6, 1960	21.62	
Dec. 10	6.99		Jan. 18, 1962	14.05		Feb. 8	21.71	
Jan. 21, 1959	6.89		<u>C4-67-28acba</u>			Mar. 23	21.58	
Mar. 18	6.18		June 24, 1958	12.27		Apr. 27	21.94	
Apr. 24	4.02		July 15	12.88		May 25	20.54	
June 1	4.79		Aug. 27	15.29		June 24	24.55	
June 23	5.24		Nov. 7	15.70				
Aug. 13	6.55		Dec. 10	15.96				
Aug. 21	6.33		Mar. 23, 1959	16.66				
Sept. 18	6.85		Apr. 27	16.77				
Oct. 26	6.09							
Dec. 8	5.79							

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>C4-67-28babag.</u> --Continued			<u>C4-67-16cagd.</u> --Continued			<u>C4-68-9bbdd.</u> --Continued		
	Apr. 11, 1962	10.80		Oct. 12, 1959	112.24		Sept. 21, 1959	10.47
	Oct. 2	12.16		Dec. 10	107.75		Nov. 2	9.92
	Jan. 22, 1963	12.31		Jan. 6, 1960	106.56		Dec. 3	10.92
				Feb. 8	105.23		Jan. 9, 1960	10.34
<u>C4-67-28bada.</u>				Mar. 22	104.26		Feb. 11	10.24
	Oct. 27, 1959	22.95		Apr. 27	108.69		Mar. 22	9.82
	Dec. 14	23.21		May 24	107.92		Apr. 26	9.62
	Jan. 6, 1960	22.86		June 24	112.10			
	Apr. 11, 1962	12.00		July 25	114.10	<u>C4-68-9bcb.</u>		
<u>C4-67-28badad.</u>				Sept. 2	116.02		Sept. 4, 1956	11.60
	Oct. 9, 1959	23.44		Oct. 4	115.88		Sept. 14	11.84
	Oct. 27	23.00		Nov. 1	113.87		Sept. 28	11.89
	Dec. 14	22.79		Dec. 1	111.72		Oct. 30	12.49
	Jan. 6, 1960	22.88		Jan. 4, 1961	110.00		Dec. 4	13.00
	Feb. 8	22.91		Feb. 9	108.75		Jan. 3, 1957	13.53
	Mar. 23	22.54		Apr. 7	107.17		Feb. 5	13.64
	Apr. 27	24.56		May 15	107.89		Mar. 4	13.76
	May 25	22.78		July 7	110.38		Apr. 16	13.02
	June 24	23.01		Sept. 21	112.08		June 3	10.18
	Oct. 4	16.31		Jan. 4, 1962	109.53		July 10	10.49
	Jan. 16, 1961	14.89		Apr. 6	108.91		Aug. 5	10.85
	Apr. 28	14.02		Sept. 18	117.61		Sept. 9	11.12
	July 10	12.72		Jan. 22, 1963	115.22		Oct. 14	11.69
	Sept. 21	12.53	<u>C4-68-8adad.</u>				Nov. 16	12.17
	Jan. 6, 1962	12.68		Aug. 24, 1956	9.10		Dec. 11	12.63
	Apr. 11	12.70		Aug. 31	9.28	<u>C4-68-9bcb.</u>		
	Oct. 2	13.91		Sept. 14	9.59		Aug. 31, 1956	8.74
	Jan. 22, 1963	13.94		Sept. 28	9.69		Sept. 14	9.15
<u>C4-67-28dab.</u>				Oct. 30	10.38		Sept. 28	10.30
	June 10, 1957	19.79		Dec. 4	11.41		Oct. 30	9.93
	July 10	19.09		Jan. 3, 1957	11.81		Dec. 4	10.74
	Aug. 7	17.26		Feb. 5	12.14		Jan. 3, 1957	11.04
	Nov. 15	17.16		Mar. 4	12.28		Feb. 5	11.45
	Dec. 11	17.89		Apr. 16	11.43		Mar. 4	11.56
	Jan. 16, 1958	18.75		June 3	8.27		Apr. 16	10.73
	Feb. 18	19.27		July 10	8.09		June 3	7.67
	Apr. 25	19.67		Aug. 6	8.68		July 10	7.77
<u>C4-67-34ddad.</u>				Sept. 9	8.80		Aug. 6	8.04
	Oct. 12, 1959	24.95		Oct. 14	9.68		Sept. 9	8.36
	Oct. 27	24.87		Nov. 16	10.51		Oct. 14	9.17
	Dec. 14	24.87		Dec. 11	10.95		Nov. 16	9.82
	Jan. 6, 1960	24.96		Jan. 17, 1958	11.40		Dec. 11	10.31
	Feb. 8	24.95		Feb. 17	11.66		Jan. 17, 1958	10.72
	Mar. 22	24.73		Mar. 12	11.73		Feb. 17	10.95
	Apr. 27	23.57		Apr. 25	10.47		Mar. 12	11.00
	May 24	23.34		May 21	9.31		Apr. 25	9.85
	June 24	24.18		June 23	8.37		May 21	8.50
	Oct. 4	24.85		July 17	8.83		June 23	8.00
<u>C4-67-36cagd.</u>				Aug. 19	9.49		July 17	8.57
	Feb. 4, 1957	105.62		Mar. 19, 1959	11.86		Aug. 19	9.08
	Feb. 14	105.34		Apr. 17	10.96	<u>C4-68-9dcad.</u>		
	Feb. 22	105.24		Apr. 27	10.80		Jan. 13, 1958	9.45
	Feb. 26	105.90		May 26	10.06		Feb. 14	9.38
	Mar. 1	105.21		June 22	9.70		Mar. 12	9.19
	Mar. 25	104.80		July 31	9.86		Mar. 25	8.65
	Apr. 22	104.28		Aug. 21	9.69		Apr. 21	7.35
	Apr. 26	104.42		Oct. 26	10.52		May 21	8.34
	Apr. 30	104.35		Dec. 8	10.97		June 23	8.65
	May 6	104.73		Jan. 8, 1960	11.35		July 17	8.65
	May 13	104.18		Mar. 22	11.38		Aug. 19	8.90
	May 20	103.61		May 10	10.33		Dec. 10	9.41
	May 28	104.04		May 25	10.10		Apr. 17, 1959	8.85
	June 3	103.76		June 27	9.54		Apr. 27	9.13
	June 10	104.15		Oct. 4	9.09		May 26	8.42
	June 17	104.52		Feb. 9, 1961	11.56		June 22	9.34
	June 24	104.49		Apr. 28	10.74		June 25	8.20
	July 2	105.21		Jan. 17, 1962	10.90		July 30	8.50
	July 10	106.09		Apr. 9	11.04		July 31	8.57
	July 18	105.83		Sept. 28	10.03		Aug. 21	8.69
	July 25	104.72		Jan. 18, 1963	11.39		Sept. 21	8.86
	Aug. 2	105.88	<u>C4-68-9bbdd.</u>				Oct. 26	8.80
	Aug. 9	105.91		Sept. 4, 1956	8.84		Dec. 15	9.12
	Aug. 17	105.68		Sept. 14	8.91		Jan. 8, 1960	9.39
	Aug. 26	106.19		Sept. 28	9.01		Feb. 11	9.46
	Sept. 9	106.74		Oct. 30	8.89		Mar. 22	8.91
	Sept. 19	106.45		Dec. 4	9.00		Apr. 30	8.62
	Sept. 23	105.98		Jan. 3, 1957	9.07		May 25	8.27
	Sept. 30	108.41		Feb. 5	10.00		June 27	8.50
	Oct. 15	108.29		Mar. 4	9.82		Oct. 4	9.11
	Oct. 12	103.69		Apr. 16	9.53		Jan. 17, 1961	9.55
	Jan. 16, 1958	104.13		June 3	7.68		Apr. 28	9.00
	Feb. 18	102.84		July 10	8.64		Jan. 17, 1962	8.81
	Mar. 13	102.77		Aug. 6	8.83		Apr. 9	8.88
	Mar. 19	102.48		Sept. 9	9.50		Sept. 28	9.12
	May 20	105.37		Oct. 12	9.87		Jan. 18, 1963	9.42
	June 15	108.92		Nov. 16	9.78	<u>C4-68-11daad.</u>		
	July 24	108.90		Dec. 11	10.10		Aug. 31, 1956	19.55
	Aug. 27	109.12		Feb. 14, 1958	10.61		Sept. 14	20.35
	Sept. 24	109.46		Mar. 12	10.68		Oct. 1	18.14
	Nov. 7	106.87		Apr. 25	9.80		Oct. 25	19.10
	Dec. 10	105.87		May 21	8.62		Dec. 4	15.58
	Jan. 30, 1959	102.97		June 23	9.66		Jan. 3, 1957	15.27
	Mar. 19	101.97		July 17	10.07		Feb. 5	15.17
	Apr. 27	101.50		Aug. 28	10.62		Mar. 4	15.03
	June 6	105.42		Mar. 19, 1959	10.62		Apr. 16	14.84
	June 24	107.57		Apr. 17	10.28		June 3	14.70
	July 31	111.67		May 26	10.25		July 15	17.77
	Aug. 21	113.53		June 25	9.85		Aug. 7	16.72
				July 30	10.20		Sept. 9	16.73

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>C4-68-11dada2.</u> --Continued			<u>C4-68-11jacac.</u> --Continued			<u>C4-68-15cbdd2.</u> --Continued		
Oct. 15, 1957	15.36		Aug. 7, 1957	15.39		Jan. 20, 1959	19.80	
Nov. 15	14.47		Sept. 9	14.76		Mar. 18	18.98	
Dec. 13	14.29		Oct. 15	15.14		Apr. 17	17.76	
Jan. 18, 1958	14.57		Nov. 15	15.28		May 26	17.35	
Feb. 20	14.51		Dec. 18	15.60		June 25	17.44	
Mar. 12	14.59		Jan. 17, 1958	15.50		July 10	18.57	
Apr. 22	15.40		Feb. 19	15.71		Sept. 21	19.30	
May 22	14.47		Mar. 12	15.91		Oct. 26	18.19	
June 20	17.74		Apr. 22	16.64		Dec. 8	18.50	
July 15	15.46		May 22	15.53		Jan. 8, 1960	18.92	
Aug. 20	15.84		June 19	15.42		Feb. 11	19.27	
Nov. 7	14.39		July 17	15.52		Oct. 4	18.88	
Dec. 10	14.33		Aug. 20	14.60		Jan. 17, 1961	19.02	
Jan. 20, 1959	14.27		Nov. 7	14.35		Apr. 28	20.56	
Mar. 17	14.32		Dec. 10	14.70		July 11	17.62	
Apr. 27	14.32		Jan. 20, 1959	15.17		Sept. 22	13.25	
June 6	16.24		Mar. 17	15.57		Jan. 17, 1962	15.35	
June 22	16.28		Apr. 27	15.36		Apr. 9	14.40	
July 11	15.78		June 6	15.50		Sept. 28	15.43	
Aug. 21	18.18		June 22	14.74		Jan. 18, 1963	15.72	
Oct. 9	13.98		July 11	14.83				
Oct. 26	22.51		Aug. 21	15.87				
Dec. 9	13.60		Oct. 9	13.89				
Feb. 12, 1960	13.95					<u>C4-68-15dcdb2.2/</u>		
Mar. 23	13.87		<u>C4-68-11jacac.</u>			June 1, 1955	18.2	
Apr. 27	14.85		Sept. 14, 1956	20.14		Oct. 28	24.2	
May 25	16.36		Sept. 28	21.39		Apr. 21, 1956	25.1	
June 24	15.90		Oct. 25	18.88		June 29	26.2	
Oct. 4	14.82		Dec. 4	18.80		Nov. 3	25.7	
Jan. 16, 1961	13.98		Jan. 3, 1957	19.41		Mar. 22, 1957	25.2	
Apr. 28	14.56		Feb. 5	18.51		May 1	25.1	
July 10	15.15		Mar. 4	18.37		June 4	24.1	
Sept. 21	13.79		Apr. 16	18.93		Aug. 3	23.5	
Jan. 20, 1962	13.77		June 3	17.85		July 11, 1958	27.0	
Apr. 12	11.30		July 15	19.00		Nov. 2, 1960	27.0	
Oct. 2	14.97		Sept. 9	18.56		Dec. 16	26.1	
Jan. 22, 1963	14.22		Oct. 15	16.83				
			Nov. 15	18.39		<u>C4-68-19cddd.</u>		
<u>C4-68-11dada.1/</u>			Dec. 18	18.22		Aug. 11, 1956	18.42	
Sept. 14, 1932	10.5		Jan. 17, 1958	18.59		Sept. 14	19.54	
Oct. 24, 1934	9.1		Feb. 20	19.99		Sept. 28	19.38	
May 28, 1936	11.0		Mar. 12	18.54		Oct. 30	20.64	
July 10	12.0		Apr. 22	20.60		Dec. 3	22.00	
Aug. 28, 1937	11.0		May 22	19.78		Jan. 2, 1957	22.83	
July 5, 1938	10.7		June 19	21.47		Feb. 4	23.68	
July 20, 1939	11.3		July 15	21.70		Mar. 5	24.23	
Oct. 20	8.8		Aug. 20	19.53		Apr. 18	18.60	
June 20, 1940	12.3		Mar. 17, 1959	18.70		June 4	17.62	
Oct. 12, 1944	13.7		Apr. 27	18.63		July 9	16.12	
June 14, 1946	13.3		June 22	19.37		Aug. 5	17.33	
May 5, 1947	13.4		July 11	21.22		Sept. 5	17.94	
July 9	14.5		Aug. 21	21.46		Oct. 8	18.50	
Aug. 5	14.8		Oct. 9	17.65		Nov. 14	19.67	
Sept. 18	14.7		Oct. 26	17.52		Dec. 11	21.08	
Sept. 25	15.0		Dec. 9	17.70		Jan. 17, 1958	22.25	
July 20, 1948	15.8		Jan. 6, 1960	18.13		Feb. 19	24.12	
Oct. 25	14.3		Feb. 12	18.37		Mar. 17	22.99	
July 20, 1949	15.9		Mar. 23	17.85		Apr. 25	20.89	
Sept. 13	14.1		Apr. 27	18.70		May 22	15.86	
June 28, 1950	14.8		May 25	17.79		June 19	16.03	
Sept. 6	15.1		Oct. 4	19.72		July 16	16.84	
July 30, 1951	15.8		Jan. 16, 1961	18.14		Aug. 28	16.93	
Sept. 6	15.3		Apr. 28	20.71		Sept. 25	17.75	
Aug. 6, 1954	15.7		July 10	21.05		Dec. 12	21.58	
Apr. 21, 1955	14.3		Sept. 21	18.74		Feb. 6, 1959	22.74	
July 16, 1956	18.5		Jan. 18, 1962	16.52		Mar. 19	21.53	
Aug. 10	17.3		Apr. 12	18.00		Apr. 17	17.47	
Oct. 3	18.1		Oct. 2	18.71		June 2	17.16	
Oct. 20, 1959	12.7		Jan. 22, 1963	18.06		June 26	16.55	
						July 30	16.13	
<u>C4-68-12caab.</u>			<u>C4-68-15cbda2.</u>			Oct. 8	17.20	
Oct. 26, 1959	23.93		Jan. 13, 1958	16.64		Dec. 3	20.39	
Dec. 9	23.70		Feb. 14	17.17		Jan. 8, 1960	21.76	
Jan. 8, 1960	24.36		Mar. 12	16.94		Feb. 11	22.47	
Feb. 12	23.96		Apr. 25	16.05		Mar. 30	19.45	
Mar. 23	24.06		May 21	13.92		May 10	17.54	
Apr. 27	24.18		June 23	16.13		May 23	17.57	
May 25	24.17		July 17	17.20		June 27	17.34	
June 24	24.28		Aug. 28	18.10		Sept. 27	18.77	
Oct. 4	24.13		Apr. 17, 1959	17.13		Jan. 17, 1961	21.64	
Jan. 16, 1961	23.83		Dec. 8	17.74		Apr. 28	19.63	
Apr. 28	24.29		Jan. 8, 1960	16.46		July 11	17.23	
July 10	24.42		Feb. 11	18.48		Sept. 22	18.04	
Sept. 21	23.91		Mar. 22	17.44		Jan. 3, 1962	22.03	
Jan. 20, 1962	23.90		Apr. 30	17.43		Apr. 9	21.55	
Apr. 12	23.80		May 25	16.64		Sept. 28	18.69	
Oct. 2	24.39		June 27	17.45		Jan. 18, 1963	22.01	
Jan. 22, 1963	24.16		Sept. 22, 1961	14.29				
			Apr. 9, 1962	15.25		<u>C4-68-21bbdd.</u>		
<u>C4-68-11jacac.</u>			<u>C4-68-15cbdd2.</u>			Aug. 29, 1956	118.08	
Aug. 31, 1956	16.27		Jan. 13, 1958	17.47		Sept. 14	121.86	
Sept. 14	15.29		Feb. 14	18.18		Sept. 28	122.27	
Oct. 25	15.32		Mar. 12	17.89		Oct. 30	125.48	
Dec. 4	15.25		Apr. 25	16.92		Dec. 7	125.93	
Jan. 3, 1957	15.48		May 21	14.62		Jan. 3, 1957	127.07	
Feb. 5	15.65		June 23	16.75		Feb. 5	127.59	
Mar. 4	16.64		July 17	17.94		Sept. 18	134.55	
Apr. 16	16.37		Aug. 28	17.90		Oct. 8	133.27	
June 3	15.88		Nov. 5	19.75		Nov. 15	132.51	
July 15	15.99		Dec. 9	19.65		Dec. 11	132.59	
						Jan. 17, 1958	132.82	
						Feb. 18	132.89	
						Mar. 12	132.83	

See footnotes at end of table.

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>C4-68-21bbdd.</u> --Continued			<u>C4-68-28dabc.</u>			<u>C4-68-28dbac.</u> --Continued		
Apr. 25, 1958	132.82		Aug. 31, 1956	13.16		May 23, 1958	9.48	
May 22	132.66		Sept. 14	13.17		June 19	10.08	
June 19	132.18		Sept. 28	14.19		July 17	11.17	
July 16	131.04		Sept. 29	13.74		Aug. 25	11.92	
Aug. 19	131.46		Dec. 3	13.76		Apr. 18, 1959	11.34	
Dec. 9	130.65		Jan. 2, 1957	13.71		Dec. 3	12.08	
Feb. 6, 1959	131.08		Feb. 4	13.90		Jan. 8, 1960	11.99	
Mar. 19	132.28		Mar. 5	13.76		Feb. 11	12.08	
Apr. 17	131.62		Apr. 18	13.32				
May 26	132.57		June 4	10.64		<u>C4-68-28dbad.</u>		
June 25	131.57		July 9	11.28		Aug. 31, 1956	14.02	
July 30	131.37		Aug. 5	11.49		Sept. 14	14.42	
Sept. 21	129.68		Sept. 5	11.76		Sept. 28	14.96	
Oct. 26	130.50		Oct. 14	12.44		Oct. 29	14.41	
Dec. 16	130.76		Nov. 14	12.08		Dec. 3	14.19	
Jan. 8, 1960	130.67		Dec. 11	11.09		Jan. 2, 1957	14.32	
Feb. 11	131.31		Jan. 17, 1958	11.00		Feb. 4	14.45	
Mar. 10	131.75		Feb. 19	12.25		Mar. 5	14.27	
Apr. 30	131.80		Mar. 12	12.35		Apr. 18	14.42	
May 23	130.36		Apr. 22	11.82		June 4	11.20	
June 27	131.70		May 23	10.47		July 9	11.37	
Sept. 27	131.21		June 19	11.17		Aug. 5	12.16	
Jan. 17, 1961	131.44		July 17	12.16		Sept. 5	12.39	
Apr. 28	132.91		Aug. 25	12.49		Oct. 14	13.09	
July 11	133.27		Sept. 24	9.90		Nov. 14	12.74	
Sept. 22	132.23		Nov. 5	13.10		Dec. 11	11.79	
Jan. 3, 1962	132.40		Dec. 9	13.12		Jan. 17, 1958	12.22	
Apr. 16	132.88		Jan. 30, 1959	13.29		Feb. 19	12.89	
Sept. 28	131.32		Mar. 19	13.43		Mar. 12	13.03	
Jan. 23, 1963	131.97		Apr. 18	12.84		Apr. 22	12.55	
			May 26	12.15		May 23	11.09	
<u>C4-68-28abdd.</u>			June 25	12.58		June 19	11.58	
Aug. 31, 1956	7.98		July 30	13.10		July 17	12.65	
Sept. 14	8.50		Sept. 21	17.45		Aug. 25	13.54	
Sept. 28	8.78		Oct. 26	12.83		Apr. 18, 1959	13.44	
Oct. 29	8.67		Dec. 3	12.10		Dec. 3	13.69	
Dec. 3	8.59		Jan. 8, 1960	13.14		Jan. 8, 1960	13.70	
Jan. 2, 1957	8.66		Feb. 11	12.94		Feb. 11	13.63	
Feb. 4	8.68		Mar. 22	12.50				
Mar. 5	8.52		Apr. 30	11.80		<u>C4-68-28dcad.</u>		
Apr. 18	8.10		May 23	10.68		Apr. 14, 1958	60.82	
June 4	5.77		June 27	13.31		June 19	60.45	
July 9	6.63		Sept. 27	13.09		July 17	61.93	
Aug. 5	6.75		Jan. 17, 1961	12.97		Aug. 25	63.21	
Sept. 5	6.89		Apr. 28	12.94		Sept. 24	63.62	
Oct. 14	7.04		July 11	12.94		Nov. 5	64.31	
Nov. 14	8.66		Jan. 15, 1962	12.10		Dec. 1	64.77	
Dec. 11	7.71		Apr. 9	12.26		Dec. 9	64.99	
Jan. 17, 1958	7.90		Sept. 28	13.00		Dec. 11	65.05	
Feb. 19	7.76		Jan. 18, 1963	13.02		Feb. 6, 1959	64.68	
Mar. 12	8.23					Mar. 17	65.17	
Apr. 22	7.16		<u>C4-68-28dabc.</u>			Mar. 24	65.10	
May 23	5.61		Aug. 31, 1956	12.50		Apr. 18	64.66	
June 19	6.72		Sept. 14	12.97		June 12	64.70	
July 17	8.65		Sept. 28	13.16		July 3	65.67	
Aug. 25	8.20		Oct. 29	12.87		July 31	69.64	
Apr. 18, 1959	7.61		Dec. 3	12.91		Aug. 21	67.94	
Dec. 3	8.02		Jan. 2, 1957	12.88		Sept. 4	68.65	
Jan. 8, 1960	8.37		Feb. 4	13.05		Oct. 8	69.04	
Feb. 11	8.10		Mar. 5	12.89		Oct. 26	68.73	
Mar. 22	7.69		Apr. 18	12.86		Nov. 2	68.64	
Apr. 30	7.20		June 4	9.80		Dec. 2	68.98	
May 23	6.58		July 3	9.73		Jan. 9, 1960	68.91	
June 27	7.41		Sept. 5	10.97		Jan. 26	68.58	
Sept. 27	8.32		Oct. 14	11.61		Feb. 8	68.50	
Jan. 17, 1961	8.29		Nov. 14	11.32		Mar. 22	68.52	
Apr. 28	7.78		Dec. 11	11.11		Mar. 29	68.75	
July 11	9.52		Jan. 17, 1958	11.01		Apr. 26	68.04	
Jan. 15, 1962	7.85		Feb. 19	11.60		May 23	68.22	
Apr. 9	7.52		Mar. 12	11.71		June 18	69.22	
Sept. 28	8.32		Apr. 22	11.67		Sept. 27	75.07	
Jan. 18, 1963	8.17		May 23	9.60		Oct. 3	74.67	
			June 19	6.41		Nov. 14	74.58	
<u>C4-68-28acdd.</u>			July 17	11.44		Jan. 3, 1961	74.75	
Sept. 28, 1956	11.90		Aug. 25	12.04		Jan. 17	74.67	
Oct. 29	11.52		Apr. 18, 1959	11.93		Feb. 7	76.08	
Dec. 3	11.51		Dec. 3	12.04		Mar. 22	74.76	
Jan. 2, 1957	11.43		Jan. 8, 1960	12.55		Apr. 7	74.48	
Feb. 4	11.57		Feb. 11	11.99		Apr. 28	74.51	
Mar. 5	11.37					May 10	74.12	
Apr. 18	11.26		<u>C4-68-28dbac.</u>			July 6	75.56	
June 4	8.39		Aug. 31, 1956	12.35		Sept. 20	75.54	
Sept. 5	14.07		Sept. 14	12.78		Jan. 15, 1962	75.53	
Oct. 14	10.38		Sept. 28	13.32		Feb. 1	75.34	
Nov. 14	10.02		Oct. 29	12.82		Feb. 14	75.07	
Dec. 11	9.55		Dec. 3	12.81		Mar. 10	74.21	
Jan. 17, 1958	9.97		Jan. 2, 1957	12.81		Apr. 3	73.89	
Feb. 19	10.20		Feb. 4	12.98		July 2	72.99	
Mar. 12	10.48		Mar. 5	12.88		Sept. 28	77.15	
Apr. 22	10.28		Apr. 18	12.80		Jan. 18, 1963	76.29	
May 23	8.18		June 21	9.61				
June 19	8.83		July 9	10.26		<u>C4-68-28dcad2.</u>		
July 17	8.87		Aug. 5	10.47		July 29, 1948	+145.56	
Aug. 25	10.70		Sept. 5	10.84		Dec. 6, 1957	+54.10	
Apr. 18, 1959	10.54		Oct. 14	11.53		Dec. 13	+54.50	
Dec. 3	10.62		Nov. 14	11.16		Dec. 18	+54.40	
Jan. 8, 1960	10.49		Dec. 11	10.26		Dec. 24	+54.20	
Feb. 11	10.59		Jan. 17, 1958	10.68		Jan. 4, 1958	+53.70	
			Feb. 19	11.39		Jan. 12	+53.90	
			Mar. 12	11.51		Jan. 20	+53.60	
			Apr. 22	10.92		Feb. 1	+53.50	

See footnotes at end of table.

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>33-68-28dcad2. --Continued</u>			<u>34-68-33dcda. --Continued</u>			<u>34-68-33dcda. --Continued</u>		
Feb. 17, 1958		+53.10	July 31, 1946		6.58	Dec. 31, 1952		8.54
Mar. 18		+53.20	Sept. 17		7.60	Jan. 26, 1953		7.88
Apr. 3		+53.10	Oct. 1		7.26	Feb. 19		12.37
Apr. 14		+52.90	Oct. 31		8.21	Mar. 17		12.33
May 5		+51.90	Nov. 13		8.20	Apr. 30		11.50
May 15		+51.80	Dec. 18		8.38	May 19		10.78
June 19		+50.3	Jan. 21, 1947		8.65	June 23		9.43
July 17		+48.8	Feb. 17		8.79	July 29		9.75
Nov. 19		+41.1	Mar. 13		8.60	Aug. 18		10.16
Dec. 1		+41.1	Mar. 26		8.22	Sept. 15		10.64
Dec. 11		+40.9	Apr. 17		8.55	Oct. 20		11.38
Jan. 12, 1959		+41.5	May 1		7.86	Dec. 4		12.29
Feb. 6		+42.1	May 13		6.61	Dec. 17		11.95
Mar. 17		+41.3	May 26		6.29	Jan. 26, 1954		12.19
Mar. 24		+41.1	June 12		6.13	Feb. 18		12.47
Apr. 18		+41.6	June 27		4.60	Mar. 14		12.54
June 22		+39.9	Aug. 1		5.29	Apr. 21		12.48
July 3		+39.5	Aug. 19		6.29	May 14		12.15
July 31		+37.2	Sept. 8		6.65	June 14		11.43
Aug. 21		+36.6	Oct. 3		7.60	July 27		11.11
Sept. 4		+35.5	Oct. 19		7.96	Aug. 20		11.32
Oct. 8		+34.3	Nov. 18		8.71	Sept. 21		12.57
Oct. 26		+33.5	Dec. 18		9.12	Oct. 13		12.91
Nov. 2		+34.3	Jan. 5, 1948		9.05	Nov. 28		12.75
Dec. 2		+33.7	Feb. 3		8.66	Dec. 23		13.16
Jan. 26, 1960		+32.1	Mar. 16		8.84	Jan. 14, 1955		13.31
Feb. 8		+34.3	Mar. 26		8.64	Feb. 23		13.36
Mar. 5		+33.5	Apr. 7		8.46	Mar. 26		13.40
Mar. 22		+34.3	Apr. 23		6.73	Apr. 25		12.71
Mar. 29		+34.3	May 5		5.87	May 23		11.01
Apr. 26		+34.1	May 20		6.11	June 24		12.51
May 23		+33.3	June 23		6.50	Aug. 1		11.88
June 18		+31.8	July 9		6.66	Sept. 8		12.24
Sept. 27		+24.6	July 24		7.32	Oct. 1		12.73
Jan. 3, 1961		+24.1	Aug. 10		7.05	Oct. 24		12.72
Jan. 17		+24.5	Aug. 24		7.1	Nov. 25		13.53
Feb. 7		+24.4	Sept. 9		7.37	Jan. 1, 1956		13.93
Mar. 22		+24.4	Sept. 21		7.50	Jan. 25		14.53
Apr. 7		+24.7	Oct. 11		8.03	Feb. 28		14.55
Apr. 28		+24.0	Dec. 14		9.52	Apr. 4		14.89
May 10		+25.7	Dec. 23		9.46	May 1		12.59
May 10		+24.0	Jan. 6, 1949		9.52	May 25		12.21
July 6		+21.8	Jan. 25		9.77	June 28		12.48
Sept. 20		+20.3	Feb. 8		9.77	July 23		12.64
Jan. 15, 1962		+21.2	Feb. 17		9.76	Aug. 29		11.57
Feb. 1		+21.3	Mar. 23		9.85	Oct. 3		14.47
Feb. 14		+21.4	Apr. 13		9.69	Oct. 25		14.16
Mar. 10		+21.2	Apr. 29		8.79	Nov. 30		14.39
Apr. 3		+20.9	May 24		8.21	Dec. 26		14.34
July 2		+19.1	June 24		6.75	Jan. 28, 1957		14.65
Sept. 28		+16.3	June 28		7.09	Feb. 26		15.22
Dec. 10		+11.5	July 29		8.30	Mar. 25		15.01
Jan. 18, 1963		+14.6	Aug. 15		7.71	Apr. 25		14.29
<u>34-68-33dcda.</u>			Sept. 26		10.35	May 28		11.15
Sept. 21, 1942		6.43	Oct. 12		9.97	June 27		12.70
Oct. 20		6.28	Oct. 28		10.02	Aug. 1		13.03
Nov. 27		7.35	Nov. 22		10.43	Aug. 31		13.37
Dec. 30		7.47	Dec. 8		10.71	Sept. 28		14.59
Jan. 26, 1943		7.63	Dec. 28		10.72	Oct. 31		14.08
Feb. 25		7.85	Jan. 23, 1950		10.68	Nov. 27		14.03
Mar. 25		7.91	Feb. 6		10.68	Dec. 30		14.72
Apr. 28		6.89	Feb. 20		10.56	Jan. 27, 1958		14.96
May 20		7.00	Mar. 21		10.80	Feb. 28		14.66
June 22		6.56	Apr. 17		9.85	Mar. 24		14.60
July 27		6.29	May 18		9.55	Apr. 28		13.95
Aug. 26		5.83	June 14		9.05	May 26		12.25
Sept. 28		6.14	July 20		9.21	June 27		13.95
Oct. 28		7.76	Aug. 16		9.98	Aug. 1		14.80
Nov. 26		8.48	Sept. 26		10.82	Sept. 1		14.60
Dec. 29		8.69	Oct. 27		9.98	Sept. 24		14.89
Jan. 25, 1944		8.75	Nov. 20		10.92	Oct. 28		14.99
Feb. 24		8.73	Dec. 21		11.32	Nov. 26		14.95
Mar. 31		8.51	Jan. 4, 1951		11.16	Dec. 29		15.10
Apr. 27		7.61	Jan. 16		11.20	Jan. 30, 1959		15.15
May 31		4.85	Feb. 6		11.23	Feb. 25		15.09
July 29		5.85	Feb. 21		11.12	Mar. 24		15.02
Aug. 31		7.57	Mar. 26		11.51	Apr. 28		14.50
Sept. 22		7.67	Apr. 24		11.25	May 26		14.19
Nov. 4		8.00	May 22		10.35	June 25		14.47
Dec. 1		7.74	June 27		9.62	July 30		14.63
Dec. 29		8.87	July 17		9.92	Sept. 21		15.26
Jan. 31, 1945		8.94	July 31		9.29	Oct. 26		14.74
Feb. 24		8.83	Aug. 21		9.92	Dec. 3		14.77
Mar. 10		9.19	Sept. 13		10.33	Jan. 8, 1960		14.80
Apr. 28		7.24	Oct. 31		11.06	Feb. 10		15.03
June 10		7.03	Dec. 3		11.45	Mar. 22		14.26
Aug. 1		6.54	Jan. 3, 1952		11.51	Apr. 30		14.18
Oct. 1		7.38	Jan. 18		11.50	May 23		12.99
Oct. 30		7.52	Feb. 4		11.67	June 27		14.15
Nov. 18		7.92	Feb. 18		11.72	July 29		14.55
Dec. 4		8.12	Mar. 3		11.44	Aug. 31		15.38
Dec. 20		8.28	Mar. 20		11.70	Sept. 27		15.38
Jan. 16, 1946		8.37	Apr. 23		11.26	Jan. 17, 1961		14.69
Feb. 19		8.43	May 6		10.15	Jan. 30		14.39
Mar. 19		8.50	July 2		9.58	Feb. 24		14.62
Apr. 16		7.10	July 27		10.04	Mar. 30		14.78
May 15		6.88	Aug. 5		9.30	Apr. 27		14.55
June 24		6.14	Aug. 27		9.30	May 29		13.45
July 3		6.43	Oct. 1		9.27	June 30		15.10
July 17		5.60	Oct. 20		11.15	July 26		14.55
			Nov. 24		8.82	Sept. 21		13.97

See footnotes at end of table.



Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>C4-68-13cdga</u> ---Continued			<u>C4-68-16dddb</u> ---Continued			<u>C4-69-23abbd</u>		
July 26, 1961	14.55		May 24, 1960	153.22		Mar. 26, 1957	294.10	
Sept. 21	13.97		June 27	150.85		Apr. 1	294.12	
Sept. 28	13.57		Jan. 17, 1961	167.82		June 2	286.00	
Oct. 14	14.14		July 11	171.13		July 9	278.50	
Nov. 10	13.94		Sept. 22	166.21		Aug. 5	292.88	
Dec. 28	13.17		Jan. 6, 1962	161.79		Sept. 5	293.77	
Jan. 31, 1962	13.97		Apr. 1	148.88		Sept. 30	294.02	
Feb. 26	13.70		Oct. 1	169.46		Nov. 14	294.12	
Mar. 26	14.56		Jan. 23, 1963	189.47		Dec. 11	293.93	
Apr. 5	14.19					Jan. 13, 1958	293.64	
May 29	14.36		<u>C4-69-2babc</u>			Feb. 18	294.02	
June 28	14.17		May 17, 1960	439.65		Mar. 17	294.31	
July 26	14.28		May 25	439.30		Apr. 22	294.52	
Aug. 29	14.86		June 27	444.00		May 21	294.74	
Sept. 23	15.00		Sept. 27	448.31		June 26	295.10	
Oct. 22	15.36		Jan. 23, 1961	443.68		July 16	295.56	
Nov. 28	15.18		May 1	441.25		Aug. 21	296.85	
Dec. 26	14.93		June 29	445.73		Sept. 25	297.37	
Jan. 21, 1963	14.82		Oct. 14	445.80		Nov. 5	298.10	
			Jan. 5, 1962	444.10		Dec. 3	298.45	
<u>C4-68-13cdca2</u>			Apr. 2	441.53		Feb. 2, 1959	298.85	
May 23, 1960	12.81		Oct. 2	449.33		Mar. 18	299.45	
June 27	14.17		Jan. 21, 1963	449.50		Apr. 17	299.78	
July 29	14.62					May 26	294.95	
Aug. 31	15.43		<u>C4-69-9acab</u>			June 25	294.12	
Sept. 27	15.41		Nov. 12, 1958	2.50		July 30	294.55	
Jan. 17, 1961	14.72		Feb. 16, 1959	+ .15		Sept. 24	295.95	
Jan. 30	14.37		Mar. 14, 1962	1.40		Oct. 26	296.69	
Feb. 24	14.69		Mar. 21	1.28		Dec. 3	296.37	
Mar. 30	14.76		Apr. 20	1.23		Jan. 8, 1960	296.15	
Apr. 27	14.62		May 2	1.48		Feb. 11	296.17	
May 29	13.42		May 13	1.12		Mar. 21	296.20	
June 30	15.19		Sept. 28	+3.26		Apr. 10	295.90	
July 26	14.70		Jan. 18, 1963	+2.03		May 24	295.96	
Aug. 29	13.85					June 23	296.40	
Sept. 28	13.64		<u>C4-69-17dadd</u>			Jan. 13, 1961	299.76	
Oct. 24	14.18		Dec. 10, 1956	141.46		Apr. 28	300.84	
Nov. 30	14.03		Jan. 3, 1957	141.28		June 29	302.14	
Dec. 28	13.30		Feb. 6	139.63		Jan. 3, 1962	304.18	
Jan. 31, 1962	14.11		Feb. 14	139.79		Apr. 21	303.55	
Feb. 26	13.87		Feb. 22	139.81		Sept. 28	302.36	
Mar. 26	14.52		Feb. 28	137.15		Jan. 18, 1963	302.08	
Apr. 9	14.07		Mar. 25	139.49				
May 29	14.45		Apr. 30	139.10		<u>C4-69-26ccdd</u>		
June 28	14.22		May 21	138.52		Oct. 10, 1956	5.26	
July 26	14.34		June 4	138.11		Oct. 30	5.00	
Aug. 29	14.97		July 15	136.82		Dec. 4	4.87	
Sept. 23	14.99		Aug. 16	133.95		Jan. 3, 1957	4.79	
Oct. 22	15.32		Sept. 16	132.88		Feb. 4	4.59	
Oct. 26	14.89		Sept. 23	132.72		Mar. 3	4.45	
Oct. 21, 1963	14.82		Sept. 30	133.86		Apr. 1	4.34	
			Oct. 8	133.96		June 2	3.32	
<u>C4-68-13cdcb2</u>			Oct. 16	133.98		July 10	1.95	
Aug. 30, 1956	18.70		Oct. 24	129.60		Aug. 5	1.92	
Sept. 14	19.21		Nov. 12	132.47		Dec. 12	2.50	
Sept. 28	18.28		Dec. 11	131.47		Jan. 13, 1958	2.43	
Oct. 29	17.61		Jan. 13, 1958	129.72		Feb. 18	2.23	
Dec. 3	19.74		Feb. 19	131.62		Mar. 17	2.10	
Jan. 2, 1957	18.27		Mar. 17	129.94		Apr. 22	1.97	
Feb. 4	19.20		Apr. 25	129.25		May 21	1.45	
Mar. 5	18.58		May 23	127.18		July 16	1.35	
Apr. 18	16.79		June 26	125.83		Aug. 21	2.09	
July 9	16.41		July 17	125.30		Apr. 17, 1959	.99	
Aug. 5	18.01		Aug. 29	124.02				
Sept. 5	18.48		Sept. 24	123.00		<u>C4-69-27bcd2</u>		
Oct. 14	18.92		Oct. 7	116.55		Sept. 10, 1956	180.21	
Nov. 15	19.01		Nov. 6	118.13		Sept. 20	181.98	
Dec. 11	19.95		Dec. 9	119.20		Oct. 1	183.62	
Jan. 14, 1958	21.90		Dec. 27	119.90		Oct. 10	195.33	
Feb. 18	20.33		Feb. 3, 1959	114.00		Dec. 3	187.48	
Mar. 12	18.48		Mar. 18	113.16		Jan. 2, 1957	187.84	
Apr. 22	17.94		Apr. 24	113.19				
May 22	15.75		June 5	111.84		<u>C4-69-14aabc</u>		
June 19	17.10		June 22	110.29		Oct. 9, 1956	1.43	
July 16	17.67		Aug. 13	110.64		Oct. 30	1.36	
Aug. 25	19.12		Sept. 14	110.66		Dec. 4	1.39	
Apr. 18, 1959	17.24		Nov. 2	109.66		Jan. 3, 1957	1.58	
Dec. 3	20.44		Dec. 3	107.84		Feb. 4	1.62	
Jan. 8, 1960	22.70		Dec. 13	108.50		Mar. 3	1.64	
Feb. 10	20.41		Jan. 4, 1960	106.98		Apr. 1	1.70	
			Feb. 10	106.81		June 2	3.69	
<u>C4-68-16dddb</u>			Mar. 31	107.63		July 10	3.59	
Sept. 9, 1957	129.48		Apr. 30	107.91		Aug. 5	3.41	
Feb. 17, 1958	118.93		May 10	107.98		Sept. 5	3.31	
Mar. 18	115.60		June 27	107.66		Oct. 14	3.10	
May 22	115.55		Aug. 31	106.32		Nov. 17	3.12	
June 19	118.10		Sept. 27	106.57		Dec. 12	3.12	
Nov. 7	82.54		Nov. 14	105.91		Feb. 17, 1958	3.28	
Dec. 10	93.79		Dec. 6	105.19		Mar. 17	3.26	
Jan. 20, 1959	135.62		Dec. 26	105.82		Apr. 22	3.37	
Mar. 17	122.44		Jan. 15, 1961	105.35		May 21	2.82	
Apr. 27	127.82		Feb. 7	105.80		June 23	3.20	
June 2	141.05		Mar. 7	105.70		July 16	3.31	
June 22	151.04		Apr. 10	106.19		Aug. 21	2.98	
Aug. 21	170.16		May 17	105.31		Sept. 25	2.79	
Oct. 12	191.13		June 23	104.94		Nov. 5	2.78	
Nov. 2	192.85		Sept. 5	104.35		Dec. 9	2.85	
Dec. 14	185.61		Jan. 25, 1962	102.56		Feb. 2, 1960	3.17	
Jan. 8, 1960	194.55		Apr. 6	108.64		Mar. 18	3.24	
Feb. 10	139.99		Sept. 29	269.74		Apr. 21	3.11	
Mar. 22	132.05		Jan. 18, 1963	255.77		May 26	3.33	

see footnotes at end of table.

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>34-69-14aabc</u> ---Continued			<u>35-66-18dcdc</u> ---Continued			<u>35-66-19accd</u> ---Continued		
June 25, 1959		1.30	Oct. 15, 1957		28.13	Dec. 10, 1958		21.97
July 30		1.01	Nov. 16		27.23	Jan. 30, 1959		22.35
Sept. 24		2.86	Dec. 11		28.36	Mar. 19		16.29
Oct. 26		2.84	Jan. 16, 1958		28.77	Apr. 27		14.40
Dec. 3		2.86	Feb. 18		27.45	June 6		14.59
Jan. 9, 1960		2.93	Apr. 28		22.82	June 24		16.35
Feb. 11		5.13	May 19		22.46	Aug. 24		19.26
Mar. 21		5.30	June 20		22.36	Oct. 12		21.46
Apr. 30		5.14	July 15		23.41	Oct. 28		21.90
June 23		5.38	Mar. 19, 1959		25.44	Dec. 10		22.43
Jan. 3, 1962		4.85	Mar. 23		25.04	Jan. 7, 1960		22.84
Apr. 12		5.10	Apr. 27		21.92	Feb. 8		23.12
			June 24		22.97	Mar. 22		17.15
			Aug. 24		25.77	May 24		13.33
<u>34-69-14abaa</u>			Oct. 12		27.52	Oct. 3		21.49
Oct. 11, 1956		2.34	Oct. 28		27.73	Jan. 16, 1961		23.46
Oct. 30		2.15	Dec. 10		27.62	Apr. 25		13.84
Dec. 4		2.18	Jan. 6, 1960		28.16	June 10		15.29
Jan. 3, 1957		2.43	Feb. 8		28.57	Sept. 21		17.40
Feb. 4		2.55	Mar. 23		26.62	Jan. 4, 1962		13.62
Mar. 3		2.59	Apr. 27		23.35	Apr. 12		12.20
Apr. 1		2.37	May 24		22.36	Oct. 1		19.74
June 2		2.32	June 24		23.24	Jan. 22, 1963		23.03
July 10		2.15	Oct. 4		30.67			
Aug. 5		2.27	Jan. 16, 1961		28.78	<u>35-66-19addd</u>		
Sept. 5		2.17	Apr. 28		22.81	Sept. 12, 1956		19.96
Oct. 14		1.99	June 30		22.87	Sept. 27		20.22
Nov. 17		2.17	Jan. 4, 1962		21.63	Oct. 25		20.79
Dec. 12		1.94	Apr. 12		21.10	Dec. 4		19.69
Jan. 13, 1958		2.12	Oct. 1		28.64	Jan. 4, 1957		19.44
Feb. 17		2.34	Jan. 22, 1963		26.97	Feb. 6		19.32
Mar. 17		2.46				Mar. 7		19.50
Apr. 22		2.59	<u>35-66-18dddd</u>			Apr. 19		19.18
May 21		2.20	Sept. 12, 1956		42.16	June 5		13.87
June 23		1.77	Sept. 27		43.28	Sept. 10		11.56
July 16		1.92	Oct. 25		42.54	Oct. 15		12.14
Aug. 21		2.06	Dec. 4		42.55	Nov. 16		11.44
Apr. 21, 1959		2.47	Jan. 4, 1957		42.60	Dec. 11		10.88
Dec. 3		2.13	Feb. 6		42.52	Jan. 16, 1958		10.19
Jan. 9, 1960		2.37	Mar. 7		42.61	Feb. 18		9.06
Feb. 11		2.31	Apr. 19		42.77	Mar. 13		7.72
May 24		2.68	June 5		41.56	Apr. 25		6.88
June 23		2.18	Aug. 7		39.13	May 19		6.68
Sept. 28		2.00	Sept. 10		37.99	June 20		7.06
Jan. 13, 1961		1.99	Oct. 15		37.36	July 15		7.74
Apr. 25		2.27	Nov. 16		37.26	Aug. 27		9.51
June 30		2.15	Dec. 11		37.10	Mar. 19, 1959		8.41
Jan. 3, 1962		2.50	Jan. 16, 1958		36.89	Apr. 27		7.08
Apr. 12		2.70	Feb. 18		36.65	June 6		6.81
Sept. 28		1.83	Mar. 13		36.02	June 24		8.29
Jan. 21, 1963		1.95	Apr. 25		35.27	Aug. 24		10.64
<u>34-69-15babb</u>			Sept. 24		34.18	Oct. 12		12.74
Nov. 17, 1957		1.65	Nov. 7		35.07	Oct. 28		13.84
Dec. 12		4.65	Dec. 10		35.58	Dec. 10		12.74
Jan. 13, 1958		5.00	Jan. 30, 1959		36.09	Jan. 6, 1960		13.06
Feb. 18		4.94	Mar. 19		35.44	Feb. 8		13.28
Mar. 17		3.68	Apr. 27		31.71	Mar. 22		10.78
Apr. 22		5.41	June 6		32.39	Apr. 27		8.41
May 21		4.61	June 24		32.30	May 24		6.90
June 19		3.49	Aug. 24		33.84	June 24		8.53
July 16		4.63	Oct. 12		35.37	Oct. 4		13.89
Aug. 21		3.89	Oct. 28		35.60	Jan. 16, 1961		14.39
Apr. 17		5.42	Dec. 10		36.03	Apr. 28		7.16
Aug. 17		4.86	Jan. 6, 1960		36.28	June 30		7.30
<u>34-69-15babb2</u>			Feb. 8		36.51	Jan. 4, 1962		6.06
Oct. 10, 1956		2.14	Mar. 22		36.69	Apr. 12		3.70
Oct. 30		3.09	Apr. 27		35.97	Oct. 1		13.70
Dec. 4		3.42	May 14		33.16	Jan. 22, 1963		16.05
Jan. 3, 1957		3.24	June 24		33.09			
Feb. 4		3.29	Oct. 4		35.68	<u>35-66-19daad</u>		
Mar. 3		2.53	Jan. 16, 1961		36.87	June 19, 1957		15.87
Apr. 1		3.37	Apr. 28		33.98	Aug. 7		14.21
June 2		2.13	June 30		32.35	Sept. 10		13.49
July 10		2.24	Jan. 4, 1962		31.16	Oct. 15		14.50
Aug. 5		2.50	Apr. 12		30.34	Nov. 16		13.49
Sept. 5		2.16	Oct. 1		33.53	Dec. 11		12.72
Oct. 14		2.22	Jan. 22, 1963		35.99	Jan. 16, 1958		11.94
Dec. 12		2.40				Feb. 18		10.68
Jan. 13, 1958		2.69	<u>35-66-19accd</u>			Mar. 13		9.65
Mar. 17		1.81	Sept. 12, 1956		32.23	Apr. 25		8.71
Apr. 22		2.57	Sept. 27		32.45	June 20		9.39
May 21		2.18	Oct. 26		31.01	July 15		6.01
June 19		1.25	Dec. 4		30.84	Aug. 27		12.11
July 16		2.77	Jan. 4, 1957		30.75	Mar. 19, 1959		11.06
Aug. 21		2.38	Feb. 6		30.70	June 6		10.00
Apr. 17, 1959		2.98	Mar. 7		30.77	Oct. 28		15.38
<u>35-66-18dcdc</u>			June 5		18.35	Dec. 10		14.90
Sept. 12, 1956		16.66	Aug. 7		17.62	Feb. 8, 1960		17.04
Sept. 27		40.71	Sept. 10		20.15	Oct. 4		25.73
Oct. 25		17.00	Oct. 15		22.22	Jan. 16, 1961		17.12
Dec. 4		35.65	Nov. 16		21.98	Apr. 12, 1962		7.00
Jan. 4, 1957		35.60	Dec. 11		21.88			
Feb. 6		35.49	Jan. 16, 1958		21.95	<u>35-66-19daad2</u>		
Mar. 7		35.54	Feb. 18		19.95	June 19, 1957		13.84
Apr. 19		35.32	Apr. 25		14.18	Aug. 7		14.74
June 5		30.33	May 19		13.75	Sept. 10		14.33
July 15		31.96	June 20		14.59	Oct. 15		13.92
Aug. 7		27.94	July 15		16.07	Nov. 16		12.96
Sept. 10		27.55	Aug. 20		17.91	Dec. 11		12.24
			Sept. 24		20.64	Jan. 16, 1958		11.42
			Nov. 7		41.26	Feb. 18		10.16

See footnotes at end of table.

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>CS-66-19daad2.</u> ---Continued			<u>CS-66-19ddcd2.</u>			<u>CS-66-19ddddd2.</u> ---Continued		
Mar. 13, 1958	9.07		Oct. 2, 1956	16.12		Apr. 28, 1958	7.28	
Apr. 25	9.50		Oct. 25	17.41		May 19	7.19	
May 19	10.10		Dec. 4	17.29		June 20	8.89	
June 20	9.22		Jan. 4, 1957	16.92		July 15	9.19	
July 15	9.99		Feb. 6	17.16		Aug. 20	11.25	
Aug. 27	11.94		Mar. 7	17.29		Mar. 19, 1959	8.65	
Mar. 19, 1959	9.89		Apr. 25	15.50		Apr. 27	7.83	
Apr. 27	11.55		June 5	6.32		June 6	9.08	
June 6	9.97		Sept. 10	9.66		June 29	12.80	
June 24	11.52		Nov. 16	9.33		Aug. 24	14.15	
Aug. 24	14.52		Dec. 11	7.32		Oct. 12	15.94	
Oct. 12	16.88		Jan. 16, 1958	5.88		Oct. 28	16.93	
Oct. 28	15.11		Oct. 12, 1959	12.19		Dec. 10	16.02	
Dec. 10	15.99		Oct. 28	12.95		Jan. 7, 1960	17.29	
Jan. 7, 1960	16.19		Dec. 10	12.19		Feb. 8	16.74	
Feb. 8	15.17		Jan. 7, 1960	13.15		Mar. 22	10.65	
Mar. 22	12.16		Feb. 8	12.91		Apr. 27	3.82	
Apr. 27	12.47		Mar. 22	5.84		May 24	7.50	
May 24	10.58		Apr. 27	4.84		June 24	10.84	
June 24	11.10		May 24	3.89		Oct. 1	19.52	
Oct. 4	16.83		June 24	6.75		Jan. 4, 1962	7.66	
Jan. 16, 1961	17.79		Oct. 1	17.78		Apr. 12	5.50	
Apr. 28	8.81		Jan. 16, 1961	15.13		Oct. 1	22.96	
June 30	9.73		Apr. 25	2.89				
Jan. 4, 1962	7.26		June 30	4.39		<u>CS-66-19ddddd3.</u>		
Apr. 12	6.70		Jan. 4, 1962	3.58		Oct. 2, 1956	19.70	
Oct. 1	18.70		Apr. 12	.50		Oct. 25	20.92	
Jan. 22, 1963	17.84		Oct. 1	18.42		Dec. 4	20.78	
			Jan. 22, 1963	18.87		Jan. 4, 1957	20.48	
<u>CS-66-19daad3.</u>			<u>CS-66-19ddddd4.</u>			Feb. 6	22.00	
June 19, 1957	13.95		Oct. 2, 1956	16.41		Mar. 7	20.66	
Aug. 7	13.84		Oct. 25	17.73		Apr. 25	19.09	
Sept. 10	13.54		Dec. 4	17.67		June 5	10.25	
Oct. 15	14.14		Jan. 4, 1957	17.27		Aug. 7	9.11	
Nov. 16	13.14		Feb. 6	17.88		Sept. 10	12.64	
Dec. 11	13.08		Mar. 7	17.69		Nov. 16	11.55	
Jan. 16, 1958	12.64		Apr. 25	15.90		Dec. 11	10.54	
Feb. 18	10.34		June 5	5.93		Jan. 16, 1958	9.31	
Mar. 13	9.30		Sept. 10	9.95		Feb. 18	7.52	
Apr. 25	8.70		Nov. 16	9.39		Mar. 13	7.45	
May 19	11.04		Jan. 16, 1958	6.18		Apr. 25	7.06	
June 20	9.44		Oct. 12, 1959	12.56		May 19	6.91	
July 15	10.24		Oct. 28	13.69		June 20	8.20	
Aug. 27	12.24		Dec. 10	12.59		July 15	8.64	
Mar. 19, 1959	10.12		Jan. 7, 1960	13.90		Aug. 20	12.24	
Apr. 27	12.60		Feb. 8	13.32		Mar. 19, 1959	8.23	
June 6	9.04		Mar. 22	5.25		Apr. 27	7.39	
June 24	12.17		Apr. 27	4.90		June 6	8.50	
Aug. 24	15.64		May 24	4.09		June 29	11.04	
Oct. 12	18.42		June 24	7.40		Aug. 24	13.43	
Oct. 28	15.12		Oct. 1	18.37		Oct. 12	15.41	
Dec. 10	13.79		Jan. 16, 1961	15.71		Oct. 28	16.07	
Jan. 7, 1960	13.93		Apr. 25	4.92		Dec. 10	15.46	
Feb. 8	15.42		June 30	4.75		Jan. 7, 1960	15.80	
Oct. 3	17.07		Jan. 4, 1962	3.82		Feb. 8	16.19	
Jan. 16, 1961	15.53		Apr. 12	2.00		Mar. 22	9.69	
Apr. 28	9.01		Oct. 1	19.16		Apr. 27	8.10	
June 30	9.87		Jan. 22, 1963	22.21		May 24	7.16	
Jan. 4, 1962	7.51					June 24	9.94	
Apr. 12	4.90					Oct. 3	18.84	
Jan. 22, 1963	18.13					Jan. 16, 1961	18.27	
<u>CS-66-19daad4.</u>			<u>CS-66-19ddddd.</u>			Apr. 25	7.58	
June 19, 1957	13.55		Oct. 2, 1956	20.00		June 30	7.85	
Aug. 7	13.53		Oct. 25	21.00		Jan. 4, 1962	6.84	
Sept. 10	13.07		Dec. 4	20.92		Apr. 12	3.80	
Oct. 15	13.63		Jan. 4, 1957	20.57		Oct. 1	21.27	
Nov. 16	12.68		Feb. 6	21.63		Jan. 22, 1963	21.42	
Dec. 11	11.94		Mar. 7	20.89				
Jan. 16, 1958	11.08		Apr. 25	19.13		<u>CS-66-20ccdd.</u>		
Feb. 18	9.63		June 5	9.30		Sept. 12, 1956	23.48	
Mar. 13	8.75		Aug. 7	8.77		Sept. 27	24.08	
Apr. 25	7.90		Sept. 10	12.95		Oct. 25	24.67	
May 19	9.35		Nov. 16	11.51		Dec. 4	25.00	
June 20	8.54		Dec. 11	10.50		Jan. 4, 1957	24.98	
July 15	9.15		Jan. 16, 1958	11.19		Feb. 6	25.08	
Aug. 26	11.22		Feb. 13	7.41		Mar. 7	25.19	
Nov. 7	12.80		Mar. 13	7.42		Apr. 25	24.50	
Dec. 10	12.93		Apr. 28	7.11		June 5	18.65	
Jan. 30, 1959	12.62		May 19	7.00		Aug. 7	16.61	
Mar. 19	9.29		June 20	8.20		Sept. 10	16.07	
Apr. 27	10.36		July 15	8.83		Nov. 16	16.59	
June 6	8.09		Aug. 20	12.47		Dec. 11	15.39	
<u>CS-66-19ddcd.</u>			Nov. 7	13.33		Jan. 16, 1958	14.04	
Oct. 12, 1959	11.85		Dec. 10	13.77		Feb. 18	12.69	
Oct. 28	12.27		Jan. 30, 1959	12.16				
Dec. 10	11.88		<u>CS-66-19ddddd2.</u>					
Jan. 7, 1960	12.45		Oct. 2, 1956	20.70				
Feb. 8	12.51		Oct. 25	20.27				
Mar. 22	5.87		Dec. 4	21.19				
Apr. 27	4.56		Jan. 4, 1957	20.88				
May 24	3.61		Feb. 6	22.08				
June 24	6.32		Mar. 7	21.13				
Oct. 3	16.38		Apr. 25	19.55				
Jan. 16, 1961	14.52		June 5	11.07				
Apr. 25	3.54		Aug. 7	10.17				
June 30	3.93		Sept. 10	13.11				
Jan. 4, 1962	3.27		Nov. 16	11.95				
Apr. 12	2.20		Dec. 11	10.90				
Oct. 1	17.53		Jan. 16, 1958	9.77				
Jan. 22, 1963	17.76		Feb. 18	7.91				
			Mar. 13	7.78				

See footnotes at end of table.

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Water level	Location number	Water level
<u>CS-66-20ccdd</u> ---Continued			<u>CS-66-29ddcc</u> ---Continued		<u>CS-66-30aaaa3</u> ---Continued	
Mar. 13, 1958	11.87		June 5, 1957	3.01	Oct. 1, 1960	19.88
Apr. 28	10.82		July 15	3.78	Jan. 16, 1961	21.17
May 19	10.30		Aug. 7	3.14	Apr. 25	7.45
June 20	10.30		Oct. 17	3.33	Jan. 4, 1962	6.58
July 15	11.82		Nov. 16	7.60	Apr. 12	4.70
Aug. 20	13.30		Dec. 11	7.50	Oct. 1	24.34
Sept. 24	15.90		Jan. 16, 1958	7.22	Jan. 22, 1963	21.91
Mar. 19, 1959	13.42		Feb. 18	6.66		
Apr. 27	11.53		Mar. 13	6.41		
June 6	10.30		Apr. 25	6.20	<u>CS-66-30aaaa4</u>	
June 29	13.16		May 19	5.96	Oct. 2, 1956	20.26
Aug. 24	15.66		June 20	6.03	Oct. 25	21.60
Oct. 12	18.87		July 15	6.65	Dec. 4	21.64
Oct. 28	18.99		Aug. 20	7.23	Jan. 4, 1957	21.27
Dec. 10	19.40		Mar. 19, 1959	6.64	Feb. 6	21.84
Jan. 7, 1960	19.68		Apr. 27	6.00	Mar. 7	21.63
Feb. 8	20.09		June 6	6.05	Apr. 25	19.31
Mar. 22	18.23		June 29	6.78	June 5	10.58
Apr. 27	13.37		Oct. 12	8.99	Aug. 7	10.00
May 24	11.23		Oct. 28	9.01	Sept. 10	13.54
June 24	12.43		Dec. 10	9.73	Nov. 16	11.91
July 3	21.19		Jan. 7, 1960	9.65	Dec. 11	10.88
Jan. 16, 1961	21.86		Feb. 8	9.73	Jan. 16, 1958	9.32
Apr. 27	12.30		Apr. 27, 1961	6.20	Feb. 18	7.85
June 10	11.06		June 10	6.63	Mar. 13	7.93
Sept. 21	12.35		Apr. 12, 1962	4.80	Apr. 25	7.22
Jan. 4, 1962	10.09				May 19	7.20
Apr. 12	9.60				June 20	8.95
Oct. 1	20.82				July 15	9.84
Jan. 22, 1963	24.15				Aug. 20	14.09
<u>CS-66-29bbdc</u>			<u>CS-66-29ddcc2</u>		<u>CS-66-30aaaa5</u>	
Sept. 12, 1956	26.26		Sept. 12, 1956	11.80	Oct. 2, 1956	20.43
Sept. 27	26.72		Sept. 27	11.00	Oct. 26	21.70
Oct. 25	27.83		Oct. 25	11.24	Dec. 4	21.79
Dec. 4	27.33		Dec. 5	11.49	Jan. 4, 1957	21.47
Jan. 4, 1957	27.39		Jan. 4, 1957	11.68	Feb. 6	22.00
Feb. 6	27.68		Feb. 6	11.93	Mar. 7	21.80
Mar. 7	27.70		Mar. 11	12.09	Apr. 25	20.03
July 15	24.56		Apr. 25	10.25	June 5	11.00
Nov. 16	17.73		June 5	7.97	Aug. 7	10.38
Dec. 11	19.50		July 15	8.60	Sept. 10	13.64
Jan. 16, 1958	11.32		Aug. 7	9.17	Nov. 16	12.08
Feb. 18	13.23		Sept. 10	13.52	Dec. 11	7.00
Mar. 13	12.28		Oct. 17	8.93	Jan. 16, 1958	10.10
Apr. 28	10.99		Nov. 16	7.49	Feb. 18	9.35
May 19	10.34		Dec. 11	7.02	Mar. 13	9.02
July 15	13.75		Jan. 16, 1958	6.77	Apr. 28	7.41
Aug. 20	17.83		Feb. 18	6.54	May 19	7.31
Mar. 19, 1959	13.68		Mar. 13	6.35	June 20	9.36
Apr. 27	11.67		Apr. 25	6.10	July 15	10.12
June 29	15.50		May 19	5.85	Aug. 20	14.16
Oct. 12	21.42		June 20	5.92	Mar. 19, 1959	9.64
Oct. 28	21.49		July 15	6.51	Apr. 27	8.10
Dec. 10	21.87		Aug. 20	7.08	June 6	9.92
Jan. 7, 1960	21.75		Nov. 7	8.00	June 29	12.99
Apr. 27	12.20		Jan. 30, 1959	6.98	Aug. 24	15.58
Apr. 12, 1962	10.20		Mar. 19	6.48	Oct. 12	16.54
Jan. 22, 1963	25.37		Apr. 27	5.90	Oct. 28	18.59
<u>CS-66-29cbca</u>			June 6	5.95	Dec. 10	16.62
Sept. 12, 1956	27.16		June 29	6.65	Jan. 7, 1960	19.09
Sept. 27	27.02		Aug. 24	9.41	Feb. 8	18.24
Oct. 25	27.16		Oct. 12	8.84	Mar. 22	10.74
Dec. 4	27.65		Oct. 28	8.92	Apr. 27	9.03
Jan. 4, 1957	27.59		Dec. 10	9.53	May 24	7.64
Feb. 6	27.77		Jan. 7, 1960	9.32	June 24	11.56
Mar. 7	28.08		Feb. 8	9.67	Oct. 3	20.68
Apr. 25	26.32		Apr. 27, 1961	6.28	Jan. 16, 1961	20.30
June 5	18.66		June 10	6.49	Apr. 25	9.28
July 15	21.04		Apr. 12, 1962	4.50	Jan. 4, 1962	7.17
Sept. 10	20.04				Apr. 13	5.40
Nov. 16	17.94				Jan. 22, 1963	22.75
Dec. 11	16.28					
Jan. 16, 1958	15.12					
Feb. 18	13.24					
Mar. 13	12.45					
Apr. 28	10.99					
May 19	9.68					
June 20	11.88					
July 15	13.91					
Mar. 19, 1959	13.21					
Apr. 21	11.28					
June 29	15.75					
Aug. 24	20.03					
Oct. 12	21.29					
Oct. 28	21.37					
Dec. 10	21.69					
Jan. 7, 1960	21.87					
Apr. 12, 1962	8.10					
Jan. 22, 1963	26.63					
<u>CS-66-29ddcc</u>						
Sept. 12, 1956	11.87					
Sept. 27	11.24					
Oct. 25	11.69					
Dec. 4	11.57					
Jan. 4, 1957	11.82					
Feb. 6	12.00					
Mar. 11	12.15					
Apr. 25	10.25					
<u>CS-66-30aaaa2</u>						
Oct. 2, 1956	21.79					
Oct. 26	22.91					
Dec. 4	23.10					
Jan. 4, 1957	22.83					
Feb. 6	24.55					
Mar. 7	24.72					
Apr. 25	23.39					
June 5	12.54					

See footnotes at end of table.

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>CS-66-10aada1</u> ---Continued			<u>CS-66-10aada1</u> ---Continued			<u>CS-66-13cbcg</u> ---Continued		
	Aug. 7, 1957	13.23		Jan. 7, 1960	19.80		Dec. 11, 1959	19.98
	Sept. 10	14.52		Feb. 8	19.37		Jan. 7, 1960	18.05
	Nov. 16	13.34		Mar. 22	15.05		Feb. 9	18.23
	Dec. 11	12.10		Apr. 27	11.29		Mar. 21	16.19
	Jan. 16, 1958	13.92		May 24	9.11		Apr. 27	16.60
	Feb. 18	11.51		June 24	13.01		May 24	16.36
	Mar. 13	10.10		Oct. 3	24.19		Oct. 3	21.02
	Apr. 28	10.72		Jan. 16, 1961	21.84		Jan. 16, 1961	18.49
	May 19	10.32		Apr. 25	11.34		Apr. 27	16.79
	June 20	9.32		Jan. 4, 1962	9.15		Jan. 4, 1962	17.27
	July 15	14.56		Apr. 13	7.40		Apr. 13	15.80
	Aug. 20	14.26		Jan. 22, 1963	22.77		Oct. 19	21.28
	Mar. 19, 1959	10.62					Jan. 22, 1963	18.80
	Apr. 27	9.46	<u>CS-66-12dcdc</u>			<u>CS-66-13ccbc</u>		
	June 6	9.29		Sept. 12, 1956	20.40		Sept. 27, 1956	10.20
	June 29	13.88		Oct. 25	12.03		Oct. 25	10.33
	Aug. 24	20.36		Dec. 5	9.88		Dec. 5	9.40
	Oct. 12	17.73		Jan. 4, 1957	9.09		Jan. 4, 1957	7.78
	Oct. 28	18.24		Feb. 6	8.50		Feb. 6	7.05
	Dec. 10	17.87		Mar. 11	3.02		Mar. 11	6.43
	Feb. 8, 1960	18.66		Apr. 25	6.38		Apr. 25	5.38
	Mar. 22	13.14		June 5	5.43		June 5	4.12
	Apr. 27	10.04		July 15	10.19		Aug. 7	6.64
	May 24	8.11		Sept. 16	9.27		Sept. 16	6.31
	June 24	11.96		Nov. 16	5.84		Oct. 17	5.53
	Oct. 3	23.74		Dec. 12	5.75		Nov. 16	4.31
	Jan. 16, 1961	20.62		Jan. 16, 1958	5.50		Dec. 12	1.92
	Apr. 25	10.25		Feb. 18	5.33		Jan. 16, 1958	3.70
	Jan. 4, 1962	8.10		Mar. 13	5.29		Feb. 18	1.47
	Apr. 13	6.70		Apr. 25	5.15		Mar. 13	3.32
	Jan. 22, 1963	21.79		May 19	4.97		Apr. 25	3.31
<u>CS-66-10aada1</u>				July 15	7.96		May 19	3.20
	Oct. 2, 1956	22.88		Mar. 19, 1959	5.22		June 20	3.36
	Oct. 25	23.79		Apr. 27	4.89		July 15	5.10
	Dec. 4	24.14		July 16	15.62		Aug. 20	6.25
	Jan. 4, 1957	23.86		Oct. 28	8.96		Nov. 7	5.13
	Feb. 6	25.51		Dec. 11	8.73		Dec. 10	4.75
	Mar. 7	25.67		Jan. 7, 1960	8.12		Jan. 30, 1959	4.28
	Apr. 25	24.21		Feb. 9	6.02		Mar. 19	3.76
	June 5	13.74		Mar. 22	4.17		Apr. 27	3.47
	Aug. 7	14.39		Apr. 13, 1962	4.90		June 29	5.10
	Sept. 10	15.51	<u>CS-66-12dcdc</u>				Oct. 12	8.64
	Nov. 16	14.41		Sept. 27, 1956	17.39		Oct. 28	7.84
	Dec. 11	13.13		Oct. 25	12.09		Dec. 11	6.20
	Jan. 16, 1958	14.22		Dec. 5	9.58		Jan. 7, 1960	8.04
	Feb. 18	12.96		Jan. 4, 1957	8.87		Feb. 9	4.39
	Mar. 13	11.05		Feb. 6	8.19		June 30, 1961	5.74
	Apr. 28	11.05		Mar. 11	7.67		Apr. 13, 1962	.20
	May 19	10.50		Apr. 25	6.15	<u>CS-67-6badh</u>		
	June 20	9.90		June 5	5.20		June 13, 1957	127.15
	July 15	15.11		July 15	10.00		July 9	158.18
	Aug. 20	15.00		Sept. 16	9.19		Aug. 7	164.13
	Mar. 19, 1959	10.65		Nov. 16	5.58		Nov. 15	139.23
	Apr. 27	10.19		Dec. 12	5.35		Dec. 18	129.59
	June 6	9.82		Jan. 16, 1958	5.60		Jan. 16, 1958	125.17
	Aug. 24	20.76		Feb. 18	5.18		Feb. 19	119.33
	Oct. 12	18.48		Mar. 13	5.20		Mar. 13	116.21
	Oct. 28	15.01		Apr. 25	5.30		Apr. 25	115.47
	Dec. 10	19.84		May 19	4.84		May 19	114.43
	Jan. 7, 1960	19.51		June 20	9.43		June 19	147.18
	Feb. 8	19.56		July 15	7.85		July 15	165.97
	Mar. 22	14.48		Aug. 20	11.95		Aug. 20	178.89
	Apr. 27	10.86		Sept. 14	8.97		Sept. 24	185.40
	May 24	8.78		Nov. 7	6.64		Nov. 7	167.55
	June 24	12.67		Jan. 30, 1959	5.90		Dec. 10	148.04
	Oct. 3	24.47		Mar. 19	5.46		Jan. 20, 1959	135.30
	Jan. 16, 1961	21.48		Apr. 27	5.22		Mar. 17	124.44
	Apr. 25	9.78		Oct. 28	8.37		Apr. 27	119.23
	Jan. 4, 1962	8.99		Dec. 11	8.09		June 2	145.33
	Apr. 13	8.40		Jan. 7, 1960	8.28		June 24	167.44
	Oct. 1	25.90		Feb. 9	6.38		Oct. 9	190.02
	Jan. 22, 1963	23.73		Mar. 22	4.05		Oct. 26	177.29
				Apr. 13, 1962	4.70		Dec. 14	151.47
<u>CS-66-10aada1</u>			<u>CS-66-13cbcg</u>				Jan. 8, 1960	143.37
	Oct. 2, 1956	23.41		Sept. 12, 1956	23.78		Feb. 10	136.58
	Oct. 25	24.17		Sept. 27	23.28		Mar. 22	130.42
	Dec. 4	24.45		Oct. 25	22.28		Apr. 26	134.82
	Jan. 4, 1957	24.26		Dec. 5	20.47		May 24	139.56
	Feb. 6	25.49		Jan. 4, 1957	20.61		June 27	179.22
	Mar. 7	25.65		Feb. 6	20.04		Oct. 3	227.12
	Apr. 25	24.13		Mar. 11	19.57		Jan. 17, 1961	159.77
	June 5	14.18		Apr. 25	18.20		Apr. 25	138.99
	Aug. 7	14.77		June 5	17.20		June 30	177.90
	Sept. 10	15.85		Sept. 16	19.27		Sept. 22	202.59
	Jan. 16, 1958	13.99		Oct. 17	17.84		Jan. 6, 1962	153.45
	Feb. 18	11.78		Nov. 16	16.56		Apr. 3	136.68
	Mar. 13	11.18		Dec. 12	15.26		Oct. 1	239.98
	Apr. 28	10.80		Jan. 16, 1958	16.00	<u>CS-67-13aadd</u>		
	May 19	10.29		Feb. 18	15.71		Sept. 27, 1956	14.86
	June 20	10.16		Mar. 13	15.62		Oct. 25	14.09
	July 15	14.81		Apr. 25	15.46		Dec. 4	14.31
	Aug. 20	15.28		May 19	15.32		Jan. 4, 1957	8.39
	Mar. 19, 1959	11.01		June 20	15.40		Feb. 6	14.61
	Apr. 27	10.44		Mar. 19, 1959	16.44		Mar. 7	14.69
	June 6	10.10		Apr. 27	16.75		Apr. 19	14.04
	June 29	14.87		June 6	17.61		June 5	10.38
	Aug. 24	20.44		June 29	17.89		July 15	10.65
	Oct. 12	19.02		Oct. 12	21.58		Aug. 7	9.69
	Oct. 28	19.35		Oct. 28	20.88			
	Dec. 10	19.19						

See footnotes at end of table.

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>CS-67-13aadd.</u> --Continued			<u>CS-67-14aabb.</u> --Continued			<u>CS-68-4aadb.</u> --Continued		
Sept. 9, 1957	10.09		Mar. 22, 1960	43.70		Dec. 11, 1957	17.50	
Oct. 15	10.10		Apr. 26	42.64		Jan. 14, 1958	17.58	
Nov. 16	10.11		May 24	42.23		Feb. 18	18.01	
Dec. 11	10.99					Mar. 18	18.17	
Jan. 16, 1958	10.15		<u>CS-67-19bbbb.</u>			Apr. 22	18.54	
Feb. 18	9.50		July 25, 1958	+41.4		May 22	18.10	
Mar. 13	9.23		Aug. 27	+31.5		June 19	18.36	
Apr. 25	9.06		Sept. 25	+29.4		July 16	18.42	
May 19	9.00		Nov. 7	+42.5		Aug. 25	18.40	
June 20	9.25		Dec. 10	+47.5				
July 15	9.43		Feb. 2, 1959	+50.0		<u>CS-68-4abdb.</u>		
Aug. 27	9.89		Mar. 23	+56.15		Aug. 2, 1956	24.89	
Nov. 7	10.63		Apr. 27	+54.0		Sept. 14	24.88	
Dec. 10	10.43		June 2	+50.5		Sept. 28	24.83	
Jan. 30, 1959	10.44		July 3	+37.6		Oct. 29	24.70	
Mar. 19	9.51		Aug. 26	+18.96		Dec. 3	25.01	
Apr. 27	8.83		Sept. 24	+14.75		Jan. 2, 1957	25.62	
June 24	9.21		Oct. 26	+33.17		Feb. 4	25.40	
July 14	9.59		Dec. 15	+42.5		Mar. 5	25.52	
Aug. 24	9.77		Jan. 8, 1960	+44.5		Apr. 18	25.26	
Oct. 12	9.75		Feb. 10	+47.0		June 4	23.70	
Oct. 28	9.75		Mar. 28	+49.1		July 9	24.42	
Dec. 10	9.82		Apr. 26	+43.0		Aug. 5	24.37	
Jan. 6, 1960	9.90		May 24	+40.6		Oct. 14	24.31	
Feb. 8	9.76		June 27	+22.75		Nov. 15	24.25	
Apr. 13, 1962	10.20		Oct. 3	+7.90		Dec. 11	24.18	
			Jan. 17, 1961	+38.3		Feb. 18, 1958	24.94	
<u>CS-67-13abdc.</u>			Apr. 29	+42.2		Mar. 18	24.88	
Sept. 12, 1956	13.16		July 6	+23.5				
Sept. 27	13.26		Sept. 22	+21.7		<u>CS-68-4bdcc.</u>		
Oct. 25	14.53		Jan. 6, 1962	+38.1		Sept. 24, 1956	15.14	
Dec. 4	14.70		Apr. 2	+43.0		Sept. 28	15.44	
Jan. 4, 1957	14.82		Oct. 20	6.2		Oct. 29	15.19	
Feb. 6	14.94		Feb. 5, 1963	+25.1		Dec. 3	15.20	
Mar. 7	15.07					Jan. 2, 1957	15.51	
Apr. 19	14.33		<u>CS-68-19abab.</u>			Feb. 4	15.80	
June 5	11.46		Aug. 30, 1956	27.27		Mar. 5	15.90	
July 15	11.59		Sept. 14	27.10		Apr. 18	15.24	
Aug. 7	10.75		Sept. 28	27.24		June 4	12.90	
Sept. 9	10.92		Oct. 29	27.30		July 9	13.79	
Oct. 15	11.11		Dec. 3	27.53		Aug. 5	13.88	
Nov. 16	10.93		Jan. 2, 1957	28.03		Sept. 5	14.37	
Dec. 11	10.90		Feb. 4	28.50		Oct. 8	15.32	
Jan. 16, 1958	10.98		Mar. 5	28.65		Nov. 14	15.00	
Feb. 18	10.57		Apr. 18	28.18		Dec. 12	15.26	
Mar. 13	10.06		June 4	25.55		Jan. 14, 1958	15.74	
Apr. 25	9.87		July 9	25.12		Feb. 18	16.00	
May 19	9.80		Aug. 5	24.97		Mar. 18	15.89	
June 20	10.22		Sept. 5	24.99		Apr. 22	15.21	
July 15	10.40		Oct. 14	24.94		May 22	13.80	
Aug. 27	10.87		Nov. 15	25.14		June 19	14.56	
Mar. 19, 1959	10.41		Dec. 11	25.57		July 16	15.95	
Apr. 27	9.80		Jan. 14, 1958	25.97		Aug. 28	16.17	
June 24	10.24		Feb. 18	26.45		Apr. 18, 1959	16.05	
July 14	10.53		Mar. 10	26.72		May 26	15.80	
Aug. 24	10.67		Apr. 22	27.17		June 25	16.08	
Oct. 12	10.56		June 19	26.75		July 3	16.32	
Oct. 28	10.52		July 16	26.61		Dec. 15	16.44	
Dec. 10	10.49		Aug. 25	26.51		Jan. 8, 1960	16.83	
Jan. 6, 1960	10.20		Nov. 5	26.39		Feb. 10	16.72	
Feb. 8	10.79		Dec. 9	25.74		June 27	15.65	
Mar. 22	9.71		Jan. 20, 1959	27.10		Sept. 28	16.26	
Apr. 27	9.44		Mar. 18	27.76		Apr. 10, 1962	15.95	
May 24	9.17		Apr. 18	21.35		Sept. 28	17.25	
June 24	9.57		May 26	28.47				
Oct. 3	9.95		June 25	27.23		<u>CS-68-4cbdd.</u>		
Jan. 16, 1961	9.78		July 30	26.99		Sept. 24, 1956	15.39	
Apr. 25	9.20		Sept. 21	26.11		Oct. 1	17.49	
July 6	9.82		Oct. 26	25.60		Oct. 29	15.71	
Jan. 4, 1962	9.28		Dec. 15	25.88		Dec. 3	15.55	
Apr. 13	11.40		Jan. 8, 1960	26.22		Jan. 2, 1957	17.77	
Oct. 1	9.82		Feb. 10	25.36		Feb. 4	16.88	
Jan. 22, 1963	9.87		Mar. 21	26.42		Mar. 5	16.45	
			Apr. 10	26.94		Apr. 18	15.10	
<u>CS-67-14aabb.</u>			May 24	26.94		June 4	12.95	
Oct. 17, 1957	49.33		June 27	26.45		Aug. 5	14.00	
Nov. 16	48.88		Sept. 28	25.11		Sept. 5	14.27	
Dec. 11	48.50		Jan. 13, 1961	25.10		Oct. 8	16.07	
Jan. 16, 1958	48.15		Apr. 25	24.95		Nov. 14	15.90	
Feb. 18	47.90		July 6	26.63		Dec. 12	16.17	
Mar. 13	47.52		Sept. 22	25.81		Jan. 14, 1958	16.26	
Apr. 25	46.92		Feb. 6, 1962	26.73		Mar. 18	16.15	
May 19	46.40		Apr. 9	27.25		June 19	15.65	
June 20	45.68		Oct. 20	26.05		July 16	17.39	
July 15	45.39					Nov. 5	17.12	
Aug. 20	45.16		<u>CS-68-4aadb.</u>			Dec. 9	15.70	
Sept. 24	45.07		Aug. 30, 1956	18.34		Feb. 2, 1959	16.28	
Nov. 7	45.00		Sept. 14	18.21		Mar. 18	16.41	
Dec. 10	45.15		Sept. 28	18.36		Apr. 18	15.88	
Jan. 30, 1959	44.99		Oct. 29	18.39		July 30	17.10	
Mar. 19	44.75		Dec. 1	18.53		Sept. 21	17.38	
Apr. 27	43.48		Jan. 2, 1957	18.90		Oct. 26	16.95	
June 6	44.21		Feb. 4	19.29		Dec. 15	16.55	
June 24	44.15		Mar. 5	19.53		Jan. 8, 1960	16.71	
July 14	44.15		Apr. 18	19.17		Mar. 22	15.76	
Aug. 24	44.26		June 4	16.70		Apr. 30	15.80	
Oct. 12	44.39		July 9	16.88		May 23	16.03	
Oct. 28	44.30		Aug. 5	17.01		Jan. 13, 1961	17.30	
Dec. 10	44.19		Sept. 5	16.98		Apr. 25	16.74	
Jan. 6, 1960	44.44		Oct. 14	16.94		Jan. 23, 1962	17.20	
Feb. 8	44.34		Nov. 15	17.02		Apr. 10	15.98	
						Jan. 21, 1963	18.06	

See footnotes at end of table.

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>CS-68-7ccag.</u>			<u>CS-68-7ccbb.</u> --Continued			<u>CS-68-8dcba.</u> --Continued		
May 18, 1956		155.80	July 13, 1960		187.64	Oct. 8, 1957		11.86
Dec. 12, 1957		167.91	July 28		190.90	Nov. 16		12.00
Jan. 13, 1958		167.68	Aug. 25		193.62	Dec. 12		12.43
Mar. 25		162.61	Sept. 6		195.00	Jan. 14, 1958		12.92
Mar. 17, 1959		166.32	Sept. 19		195.12	Feb. 18		13.20
Dec. 14		172.62	Sept. 28		195.38	Mar. 17		12.59
Sept. 28, 1960		198.38	Oct. 10		195.88	Apr. 22		12.47
Apr. 25, 1961		172.54	Oct. 20		195.10	May 22		11.15
<u>CS-68-7ccbb.</u>			Oct. 29		194.16	June 19		9.63
Feb. 20, 1957		173.49	Nov. 14		192.63	July 16		12.24
Mar. 19		172.64	Nov. 30		191.80	Aug. 28		12.45
Apr. 18		171.95	Dec. 10		191.03	Apr. 20, 1959		13.70
June 4		171.97	Dec. 19		190.38	<u>CS-68-8dcdb.</u>		
July 9		177.99	Jan. 1, 1961		189.00	Sept. 26, 1956		10.28
July 11		178.32	Jan. 13		188.33	Sept. 28		10.44
July 18		180.34	Feb. 10		186.51	Oct. 31		14.04
July 25		179.46	Feb. 26		187.78	Dec. 3		12.12
Aug. 2		179.92	Mar. 14		185.24	Jan. 2, 1957		13.72
Aug. 9		180.49	Apr. 7		183.08	Feb. 4		14.05
Aug. 17		180.60	Apr. 23		182.30	Mar. 5		14.26
Aug. 26		180.10	May 9		182.59	Apr. 18		13.89
Sept. 2		181.08	May 25		182.30	June 4		11.41
Sept. 10		181.85	July 6		185.87	July 8		9.77
Sept. 23		181.46	July 10		182.35	<u>CS-68-8dcdb.</u>		
Sept. 30		182.73	Aug. 7		186.82	Sept. 26, 1956		5.56
Oct. 8		183.02	Sept. 20		187.36	Sept. 28		5.59
Oct. 16		181.79	Jan. 3, 1962		186.37	Oct. 31		9.33
Oct. 24		180.93	Apr. 2		182.08	Dec. 3		8.11
Nov. 3		180.24	Sept. 28		194.60	Jan. 2, 1957		8.41
Nov. 12		179.70	Jan. 23, 1963		189.44	Feb. 4		9.01
Nov. 20		179.39	<u>CS-68-8daac.</u>			Mar. 5		9.20
Dec. 3		178.80	Sept. 26, 1956		4.55	June 6		6.80
Dec. 12		178.28	Sept. 28		4.67	July 8		5.91
Dec. 23		178.07	Oct. 29		4.43	Aug. 5		5.18
Jan. 4, 1958		177.63	Dec. 3		4.69	Sept. 5		5.12
Jan. 13		177.18	Jan. 2, 1957		4.70	Oct. 8		5.73
Jan. 30		177.75	Feb. 4		4.72	Nov. 16		6.05
Jan. 34		176.69	Mar. 5		4.85	Dec. 12		6.13
Feb. 10		175.02	Apr. 18		4.27	Mar. 17, 1958		6.72
Mar. 17		174.69	June 4		2.90	Apr. 22		6.48
Mar. 25		174.51	July 9		1.74	May 22		5.19
Apr. 3		174.52	Aug. 5		2.98	June 19		3.50
Apr. 14		174.16	Sept. 5		3.45	July 16		5.19
Apr. 28		174.26	Oct. 8		4.28	Aug. 28		7.33
May 10		174.22	Nov. 16		3.62	Nov. 5		7.62
May 22		173.87	Dec. 12		4.06	Feb. 2, 1959		7.60
June 3		174.88	Jan. 14, 1958		4.40	Mar. 18		8.02
June 19		177.85	Feb. 18		4.37	Apr. 18		7.35
July 2		179.44	Mar. 17		3.77	May 26		8.59
July 9		179.43	Apr. 22		3.45	<u>CS-68-8dcda.</u>		
July 16		180.54	May 22		2.75	Aug. 30, 1956		4.88
Aug. 1		180.15	June 19		3.36	Sept. 4		5.40
Aug. 8		182.27	July 16		3.47	Sept. 23		6.05
Aug. 15		183.93	Aug. 28		3.73	Oct. 29		8.64
Aug. 22		185.33	Apr. 20, 1959		3.68	Dec. 3		7.70
Aug. 29		184.79	Dec. 15		5.68	Jan. 2, 1957		8.08
Sept. 12		185.51	Jan. 8, 1960		4.51	Feb. 4		8.39
Sept. 25		184.92	Feb. 10		4.40	Mar. 5		8.55
Oct. 6		184.79	<u>CS-68-8dcad.</u>			Apr. 18		7.86
Oct. 17		185.29	Sept. 5, 1957		3.77	June 4		5.10
Nov. 5		183.64	Oct. 8		4.69	July 8		4.80
Nov. 19		182.71	Nov. 16		4.63	Aug. 5		4.74
Nov. 26		182.25	Dec. 12		5.07	Oct. 8		4.76
Dec. 1		181.02	Jan. 14, 1958		5.58	Nov. 16		4.64
Dec. 8		181.47	Mar. 18		5.36	Dec. 12		4.79
Dec. 19		181.07	Apr. 20		5.43	Jan. 14, 1958		5.54
Feb. 6, 1959		179.11	June 26		4.31	Feb. 18		5.80
Feb. 17		178.95	July 30		4.98	Mar. 18		5.48
Mar. 17		178.27	Sept. 21		7.84	Apr. 22		4.87
Mar. 24		177.97	Oct. 26		5.98	May 22		3.16
Apr. 1		177.76	Dec. 14		6.09	July 16		3.96
Apr. 10		177.15	Jan. 8, 1960		6.09	Aug. 28		5.77
Apr. 21		176.81	Feb. 10		6.03	Dec. 9		5.63
May 5		177.48	Mar. 22		7.40	Apr. 20, 1959		5.65
May 13		177.26	Apr. 30		4.87	May 26		5.26
June 22		183.44	May 23		4.37	Dec. 14		6.40
June 29		184.09	Sept. 28		8.85	Jan. 8, 1960		6.45
July 14		186.77	Jan. 17, 1961		5.32	Feb. 10		6.20
July 31		189.96	Apr. 25		5.45	Apr. 10, 1962		5.02
Aug. 21		190.59	July 6		5.40	<u>CS-68-9accb.</u>		
Sept. 2		190.98	Sept. 22		3.87	Aug. 30, 1956		27.41
Sept. 22		190.57	Jan. 29, 1962		4.85	Sept. 14		27.35
Oct. 8		188.06	Apr. 10		4.67	Sept. 28		27.37
Oct. 26		186.04	Sept. 28		8.83	Oct. 29		26.94
Nov. 11		184.60	Jan. 21, 1963		5.55	Dec. 3		29.27
Nov. 24		183.78	<u>CS-68-9dcba.</u>			Jan. 2, 1957		30.64
Dec. 3		183.14	Sept. 26, 1956		11.59	Feb. 4		31.30
Dec. 19		182.50	Sept. 28		11.88	Mar. 5		31.75
Dec. 31		181.71	Oct. 31		15.01	Apr. 18		32.00
Jan. 7, 1960		182.45	Dec. 3		14.79	June 4		30.67
Jan. 27		182.00	Jan. 2, 1957		15.43	July 9		28.79
Feb. 10		180.54	Feb. 4		15.77	Aug. 5		27.76
Feb. 24		180.04	Mar. 5		16.00	Oct. 14		27.53
Mar. 12		179.70	Apr. 18		15.58	Nov. 16		28.54
Mar. 23		179.25	June 4		12.98	Dec. 11		29.55
Apr. 4		179.16	July 9		10.48	Jan. 14, 1958		30.60
Apr. 16		178.62	Aug. 5		11.02	Feb. 18		31.34
Apr. 23		179.20	Sept. 5		10.95			
May 8		181.60						
June 27		185.52						

See footnotes at end of table.

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>CS-68-9acdb</u> --Continued			<u>CS-68-17cdba</u> --Continued			<u>CS-68-20cbdd</u> --Continued		
Mar. 18, 1958	11.54		Nov. 17, 1957	2.69		July 5, 1961	9.48	
Apr. 22	12.01		Dec. 12	3.24		Sept. 22	9.31	
May 22	11.25		Jan. 14, 1958	3.77		Jan. 3, 1962	8.94	
June 23	28.40		Feb. 17	3.33		Apr. 10	9.29	
July 16	27.59		Mar. 18	3.34		Sept. 28	9.35	
Aug. 28	27.30		Apr. 25	3.31		Jan. 21, 1963	9.22	
Nov. 5	27.43		May 22	2.48				
Dec. 9	29.81		June 19	2.70		<u>CS-68-10aabd</u>		
Feb. 2, 1959	10.98		July 16	1.30		Oct. 1, 1956	29.36	
Mar. 18	12.05		Apr. 20, 1959	3.26		Oct. 29	29.26	
Apr. 20	11.91					Dec. 3	29.42	
May 26	11.13		<u>CS-68-17cdcb</u>			Jan. 2, 1957	29.95	
June 23	29.47		Sept. 21, 1956	5.68		Feb. 4	30.14	
July 30	29.09		Sept. 28	6.27		Mar. 5	30.45	
Sept. 21	26.15		Oct. 24	5.88		Apr. 18	30.49	
Oct. 26	27.49		Dec. 3	6.27		June 4	29.05	
Dec. 15	10.02		Jan. 2, 1957	6.79		July 8	27.30	
Jan. 8, 1960	29.48		Feb. 4	7.16		Aug. 5	27.80	
Feb. 10	10.24		Mar. 5	7.17		Sept. 4	27.75	
Mar. 22	10.69		Apr. 18	6.77		Nov. 17	28.18	
Apr. 10	29.47		June 4	4.79		Dec. 13	28.84	
May 24	29.56		July 8	3.30		Jan. 14, 1958	29.42	
June 27	27.72		Aug. 5	3.20		Feb. 18	30.40	
Sept. 28	26.09		Sept. 2	3.56		Mar. 18	30.11	
Jan. 13, 1961	28.67		Oct. 8	4.28		Apr. 22	30.49	
Apr. 29	29.99		Nov. 17	4.55		May 21	29.36	
July 6	28.39		Dec. 12	5.07		June 23	27.98	
Jan. 29, 1962	29.79		Feb. 17, 1958	5.83		July 16	27.48	
Apr. 10	30.63		Mar. 18	5.74		Apr. 21, 1959	30.22	
Oct. 1	26.63		Apr. 25	5.46		Dec. 15	29.15	
			May 22	4.25		Jan. 8, 1960	29.50	
<u>CS-68-17cdad</u>			June 19	3.84		Feb. 10	29.88	
Feb. 7, 1957	5.77		July 16	2.34		Sept. 28	27.51	
Feb. 14	5.67		Aug. 28	7.00		Apr. 12	30.26	
Feb. 22	6.01		Mar. 24, 1959	5.70		Sept. 28	28.11	
Mar. 1	5.82		Apr. 20	5.07		Feb. 5, 1963	30.10	
Mar. 8	5.86		Dec. 15	5.50				
Mar. 15	6.17		Jan. 7, 1960	5.82		<u>CS-68-10adad</u>		
Mar. 21	6.55		Feb. 10	5.82		Aug. 29, 1956	0.59	
Mar. 28	6.39					Sept. 21	1.66	
Apr. 4	7.83		<u>CS-68-20cbad</u>			Sept. 28	1.60	
Apr. 11	5.31		Aug. 30, 1956	13.54		Oct. 19	1.01	
Apr. 19	4.39		Sept. 14	13.80		Dec. 3	1.28	
Apr. 28	4.60		Sept. 28	14.25		Jan. 2, 1957	1.64	
May 6	3.95		Oct. 29	13.61		Feb. 4	2.30	
May 13	3.19		Dec. 3	13.69		Mar. 5	2.00	
May 20	2.29		Jan. 2, 1957	13.99		Apr. 18	1.94	
May 28	3.68		Feb. 4	14.39		June 4	1.24	
June 3	1.05		Mar. 5	14.40		July 8	1.25	
July 17	2.51		Apr. 18	14.31		Aug. 5	1.49	
Sept. 2	4.83		Sept. 4	12.65		Sept. 4	1.61	
Oct. 8	4.07		Oct. 14	12.93		Oct. 14	1.64	
Nov. 17	3.36		Nov. 16	12.65		Nov. 17	1.49	
Dec. 12	3.96		Dec. 13	13.25		Dec. 13	1.94	
Feb. 17, 1958	4.42		Jan. 14, 1958	12.75		Jan. 14, 1958	1.40	
Mar. 18	4.13					Feb. 18	1.89	
Apr. 25	4.44		<u>CS-68-20cbdd</u>			Mar. 18	1.77	
May 22	3.83		Aug. 30, 1956	9.18		Apr. 22	2.12	
June 19	4.85		Sept. 14	9.43		May 21	1.22	
July 16	3.52		Sept. 28	9.88		June 23	1.39	
Aug. 28	5.17		Oct. 29	9.12		July 16	1.62	
Sept. 25	3.60		Dec. 3	8.96		Aug. 28	1.03	
Nov. 5	3.57		Jan. 2, 1957	9.33		Nov. 5	1.11	
Dec. 9	3.79		Feb. 4	9.74		Dec. 9	2.0	
Feb. 2, 1959	3.14		Mar. 5	9.71		Feb. 2, 1959	1.92	
Mar. 18	3.92		Apr. 18	9.65		Mar. 18	2.20	
Apr. 20	3.21		June 4	8.09		Apr. 18	1.78	
May 26	2.26		July 8	7.79		May 26	1.7	
June 26	2.82		Aug. 5	7.63		June 26	1.7	
July 30	4.66		Sept. 4	8.02		July 30	1.08	
Sept. 21	5.07		Oct. 14	8.27		Sept. 24	1.65	
Oct. 26	3.70		Nov. 16	7.96		Oct. 26	1.43	
Dec. 15	4.31		Dec. 12	8.50		Dec. 15	1.42	
Jan. 7, 1960	5.97		Jan. 4, 1958	9.07		Jan. 9, 1960	1.64	
Feb. 10	6.89		Feb. 18	9.30		Feb. 10	1.47	
Mar. 21	3.20		Mar. 18	9.31		Mar. 21	1.25	
Apr. 30	2.95		Apr. 22	9.74		Apr. 30	1.66	
May 23	3.85		May 22	9.04		May 24	1.10	
June 27	4.80		June 23	8.94		June 23	1.17	
Sept. 28	6.59		July 16	7.50		Sept. 28	1.46	
Jan. 13, 1961	3.81		Aug. 28	8.43		Jan. 13, 1961	1.70	
Apr. 27	5.15		Sept. 25	7.84		Apr. 29	2.05	
July 5	5.30		Nov. 5	7.79		July 5	1.77	
Jan. 6, 1962	6.32		Dec. 9	8.79		Jan. 3, 1962	1.58	
Feb. 2	2.89		Feb. 2, 1959	9.44		Apr. 12	1.82	
Apr. 10	2.80		Mar. 18	8.61		Sept. 28	1.08	
Oct. 1	3.92		Apr. 20	8.83		Feb. 5, 1963	1.64	
Jan. 21, 1963	4.91		June 26	8.64				
			July 10	7.07		<u>CS-68-11adad</u>		
<u>CS-68-17cdba</u>			Sept. 24	7.79		Sept. 17, 1956	2.92	
Oct. 29, 1956	2.90		Oct. 26	7.44		Sept. 27	2.40	
Dec. 3	4.09		Dec. 14	8.48		Oct. 29	2.68	
Jan. 2, 1957	5.38		Jan. 8, 1960	8.77		Dec. 3	1.89	
Feb. 4	5.72		Feb. 10	8.87		Jan. 2, 1957	2.84	
Mar. 5	5.78		Mar. 21	8.84		Feb. 4	2.97	
Apr. 15	5.41		Apr. 30	9.02		Mar. 5	2.92	
June 4	3.30		May 24	8.49		Apr. 18	1.88	
July 8	1.80		June 23	8.69		July 3	1.87	
Aug. 5	1.98		Sept. 28	8.24		July 31	1.73	
Sept. 5	2.20		Jan. 13, 1961	8.91		Sept. 4	2.22	
Oct. 8	2.78		Apr. 29	9.41		Oct. 16	2.22	

See footnotes at end of table.



Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>C5-68-31adab.</u> --Continued			<u>C5-69-6bdcg.</u> --Continued			<u>C6-66-4bdcc.</u>		
Nov. 14, 1957		2.00	Sept. 24, 1959		5.73	July 15, 1959		21.50
Dec. 12		2.25	Oct. 20		2.69	Dec. 10		21.64
Jan. 13, 1958		2.54	Dec. 15		1.32	Jan. 7		21.34
Feb. 18		2.95	Jan. 9, 1960		2.27	Mar. 21		18.21
Mar. 18		3.60	Feb. 11		2.88	Apr. 27		17.44
Apr. 22		2.96	Mar. 21		2.32	May 24		16.67
May 21		1.24	Apr. 10		1.95	June 23		17.42
June 23		1.37	May 24		2.17	Oct. 3		22.51
July 16		2.53	June 23		1.75	Jan. 16, 1961		21.11
Sept. 25		2.33	July 26		3.22	July 1		16.08
Dec. 9		2.89	Sept. 28		5.93	Jan. 4, 1962		16.09
Feb. 2, 1959		2.97	Jan. 13, 1961		2.28			
Mar. 17		2.97	Apr. 25		3.44	<u>C6-66-4cada.</u>		
Apr. 18		2.16	July 5		2.39	Sept. 12, 1956		22.64
June 25		1.99	Jan. 1, 1962		4.11	Sept. 27		20.15
July 23		2.55	Apr. 12		2.50	Oct. 26		21.90
Sept. 21		3.14	Oct. 19		6.02	Dec. 5		9.86
Oct. 26		2.75	Jan. 21, 1963		2.15	Jan. 4, 1957		9.53
Dec. 14		2.70				Feb. 5		19.17
Jan. 3, 1960		2.76	<u>C5-69-7cacb.</u>			Mar. 11		13.93
Feb. 9		2.48	June 11, 1957		46.43	Apr. 25		17.18
Mar. 22		1.96	July 9		44.37	June 5		15.15
May 4		1.88	July 31		43.52	July 15		17.39
May 23		1.49	Sept. 5		44.11	Aug. 7		15.41
June 27		2.12	Oct. 14		42.26	Sept. 16		15.93
Sept. 28		2.91	Nov. 16		41.71	Nov. 16		14.36
Jan. 13, 1961		2.55	Dec. 13		41.63	Dec. 12		13.82
Apr. 29		2.16	Jan. 13, 1958		41.97	Jan. 16, 1958		13.69
July 5		2.23	Feb. 18		40.52	Feb. 18		13.59
Jan. 6, 1962		2.36	Mar. 17		40.08	Mar. 13		13.27
Apr. 12		1.60	Apr. 22		39.68	Apr. 25		13.42
Oct. 1		2.72	May 21		39.49	May 19		13.27
Jan. 22, 1963		1.64	June 23		41.54	Mar. 19, 1959		13.78
<u>C5-68-31daab.</u>			July 16		41.56	Apr. 27		13.27
Sept. 17, 1956		2.70	Aug. 21		41.65	June 6		13.19
Sept. 27		2.96	Sept. 25		40.76	July 16		34.69
Oct. 29		2.45	Nov. 5		39.07	Aug. 24		18.38
Dec. 3		2.85	Dec. 9		37.43	Oct. 12		17.39
Jan. 2, 1957		2.94	Feb. 2, 1959		38.95	Oct. 28		17.16
Feb. 4		2.95	Mar. 18		38.58	Dec. 10		16.76
Mar. 5		2.89	Apr. 21		38.62	Jan. 7, 1960		16.52
July 3		1.98	Apr. 26		38.20	Feb. 9		15.56
July 31		2.12	May 25		38.59	Mar. 21		14.06
Sept. 4		3.02	June 23		39.50	Jan. 4, 1962		12.50
Oct. 16		2.89	July 23		39.66	Apr. 13		12.50
Nov. 14		2.64	Sept. 24		38.52	Oct. 19		16.95
Dec. 12		3.03	Oct. 26		38.25	Jan. 22, 1961		17.07
Jan. 13, 1958		3.33	Dec. 13		37.99			
Mar. 18		3.67	Jan. 9, 1960		37.93	<u>C6-66-5adac.</u>		
<u>C5-68-31daac.</u>			Feb. 11		37.93	Sept. 12, 1956		21.34
Sept. 17, 1956		3.52	Mar. 21		37.99	Sept. 27		20.57
Sept. 27		3.85	Apr. 30		37.68	Oct. 26		19.38
Oct. 29		3.32	May 24		37.36	Dec. 5		17.50
Dec. 3		3.64	June 23		37.74	Jan. 4, 1957		16.76
Jan. 2, 1957		3.69	July 26		37.77	Feb. 6		16.05
Feb. 4		3.76	Sept. 28		37.75	Mar. 11		15.60
Mar. 5		3.74	Jan. 13, 1961		36.80	Apr. 25		13.25
July 1		2.95	Apr. 25		35.01	June 5		12.22
July 31		2.99	July 5		35.51	July 15		15.71
Sept. 4		3.77	Jan. 3, 1962		35.32	Aug. 7		13.81
Oct. 16		3.58	Apr. 20		35.91	Sept. 16		14.70
Nov. 14		2.80	Sept. 28		36.19	Oct. 17		13.45
Dec. 12		3.66	Jan. 21, 1963		34.55	Nov. 16		12.24
Jan. 13, 1958		4.08	<u>C5-69-18bbcc.</u>			Dec. 12		12.02
Mar. 18		4.67	Dec. 5, 1956		43.5	Jan. 16, 1958		12.00
Mar. 22, 1959		7.00	Jan. 1, 1957		43.75	Feb. 18		11.95
<u>C5-69-6bdcc.</u>			Feb. 4		43.50	Mar. 13		11.87
Oct. 11, 1956		5.80	Mar. 3		43.75	Apr. 25		17.89
Oct. 30		5.97	Apr. 1		43.75	May 19		11.79
Dec. 1		2.67	June 3		46.00	June 20		12.47
Jan. 3, 1957		2.16	July 5		47.00	Nov. 7		13.40
Feb. 4		2.09	July 31		48.00	Dec. 10		12.87
Mar. 3		2.11	<u>C5-69-25aacg.</u>			Jan. 30, 1959		12.40
Apr. 1		2.06	Apr. 18, 1957		14.70	Mar. 19		12.06
June 2		1.90	June 4		14.45	Apr. 27		11.80
July 9		1.70	July 3		15.46	June 6		13.65
Aug. 5		1.91	Aug. 5		16.91	June 26		13.62
Sept. 5		2.09	Sept. 5		18.16	July 15		30.10
Oct. 14		2.40	Oct. 14		18.56	Oct. 13		17.52
Nov. 17		2.82	Nov. 17		18.45	Oct. 28		16.43
Dec. 13		2.90	Dec. 13		18.58	Dec. 10		14.65
Jan. 2, 1958		2.79	Jan. 14, 1958		18.46	Jan. 7, 1960		15.37
Feb. 11		2.52	Feb. 18		17.32	Feb. 9		13.56
Mar. 17		2.44	Mar. 18		17.31	Mar. 22		10.33
Apr. 22		2.44	Apr. 22		17.12	Apr. 27		11.35
May 21		2.48	May 21		17.40	May 24		11.30
June 23		1.97	June 23		19.32	Sept. 29		11.33
July 16		2.74	July 16		21.17	Jan. 16, 1961		13.74
Aug. 21		4.72	Aug. 21		23.45	Apr. 27		11.29
Sept. 25		6.33	Nov. 5		23.73	July 1		15.20
Nov. 5		5.19	Dec. 9		23.03	Sept. 21		15.05
Dec. 9		2.30	Feb. 2, 1959		21.42	Jan. 4, 1962		11.16
Feb. 2, 1959		2.17	Oct. 11, 1960		16.39	Apr. 13		10.40
Mar. 18		2.37	Jan. 13, 1961		36.33	Oct. 1		18.45
Apr. 21		2.18	Apr. 29		37.02	Jan. 22, 1963		13.96
May 26		2.00	July 6		16.73	<u>C6-66-9adde.</u>		
June 25		2.02	Sept. 22		16.74	Sept. 27, 1956		20.79
July 23		3.20	Jan. 3, 1962		39.57	Oct. 26		21.47
			Apr. 20		40.08	Dec. 5		20.45
			Sept. 28		45.01	Jan. 4, 1957		19.90
			Jan. 21, 1963		45.05			

See footnotes at end of table.

Table 1.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>C6-66-9addc</u> ---Continued			<u>C6-66-9bdcg</u> ---Continued			<u>C6-66-22bcab</u> ---Continued		
Feb. 6, 1957	19.44		Dec. 10, 1956	28.78		Jan. 4, 1957	12.15	
Mar. 11	19.39		Jan. 10, 1959	28.31		Feb. 6	11.30	
Apr. 25	16.45		Mar. 19	28.49		Mar. 11	11.53	
June 5	15.33		Apr. 27	27.48		Apr. 25	10.34	
Aug. 7	14.47		June 6	27.30		June 5	19.07	
Sept. 16	17.40		Oct. 13	11.98		July 15	11.11	
Oct. 16	16.31		Oct. 28	11.56		Aug. 7	19.16	
Nov. 16	15.37		Dec. 10	10.31		Sept. 16	10.98	
Dec. 12	15.20		Jan. 7, 1960	10.77		Oct. 16	18.98	
Jan. 16, 1958	15.09		Feb. 9	28.98		Nov. 16	28.07	
Feb. 18	14.30		Mar. 22	27.79		Dec. 12	27.18	
Mar. 13	14.98		Apr. 27	27.23		Jan. 16, 1958	27.50	
Apr. 25	14.97		May 24	27.65		Feb. 18	27.38	
May 19	14.85		Sept. 29	11.83		Mar. 13	27.30	
June 20	15.02		Jan. 16, 1961	28.97		Apr. 25	27.11	
Sept. 24	17.01		Apr. 27	27.83		May 19	27.12	
Mar. 19, 1959	15.24		Apr. 13, 1962	24.60		June 20	26.81	
Apr. 27	15.04					July 15	28.05	
June 6	15.06		<u>C6-66-9bdcg</u>			Mar. 19	25.88	
June 26	15.33		Sept. 12, 1956	12.90		Apr. 27	25.66	
Aug. 24	20.36		Sept. 27	11.89		May 11	25.19	
Oct. 13	18.11		Oct. 26	13.10		June 6	25.30	
Oct. 28	18.04		Dec. 5	11.63		June 26	26.63	
Dec. 10	15.31		Jan. 4, 1957	11.22		July 13	51.60	
Jan. 7, 1960	15.52		Feb. 6	10.73		Aug. 24	28.09	
Feb. 9	15.22		Mar. 11	10.42		Oct. 13	26.39	
Mar. 21	14.34		Apr. 25	29.28		Oct. 28	26.56	
Apr. 27	15.20		June 5	27.63		Dec. 10	25.32	
May 24	15.11		July 15	14.34		Jan. 7, 1960	25.77	
Sept. 29	20.35		Aug. 7	28.68		Feb. 8	25.53	
Jan. 16, 1961	15.53		Sept. 16	28.97		Mar. 21	25.06	
Apr. 27	15.25		Nov. 16	29.49		Sept. 29	27.36	
July 1	15.48		Dec. 12	27.00		Apr. 13	24.60	
Jan. 4, 1962	15.35		Jan. 16, 1958	26.78		Oct. 19	28.66	
Apr. 13	14.70		Feb. 18	26.55		Jan. 22, 1963	27.59	
Oct. 19	18.65		Mar. 13	26.41				
Jan. 22, 1963	16.42		Apr. 25	26.24		<u>C6-66-22bcab2</u>		
			May 19	25.98		June 6, 1959	26.67	
<u>C6-66-9addc2</u>			June 20	26.08		June 26	27.97	
Sept. 12, 1956	13.35		Mar. 19, 1959	26.24		Aug. 24	29.42	
Sept. 27	8.75		Apr. 27	25.89		Oct. 13	28.34	
Oct. 26	10.40		June 6	25.73		Oct. 28	27.89	
Dec. 5	9.33		Oct. 28	29.35		Dec. 10	27.16	
Jan. 4, 1957	8.88		Dec. 10	28.07		Jan. 7, 1960	27.03	
Feb. 6	8.31		Jan. 7, 1960	28.43		Feb. 8	26.59	
Mar. 11	7.95		Feb. 9	26.70				
Apr. 25	5.27		Apr. 13, 1962	23.20		<u>C6-66-22bcab3</u>		
June 5	4.18					June 6, 1959	26.47	
July 15	9.95		<u>C6-66-22bcad</u>			June 26	28.23	
Aug. 7	4.08		Sept. 12, 1956	41.85		Aug. 24	29.50	
Sept. 16	6.33		Oct. 26	42.66		Oct. 13	28.53	
Oct. 16	5.70		Dec. 5	41.46		Oct. 28	28.07	
Nov. 16	4.23		Jan. 4, 1957	39.73		Dec. 10	27.40	
Dec. 12	4.05		Feb. 6	39.35		Jan. 7, 1960	27.07	
Jan. 16, 1958	3.94		Mar. 11	39.06		Feb. 8	26.99	
Feb. 18	3.76		Apr. 25	38.44				
Mar. 13	3.85		June 5	37.20		<u>C6-66-22ccdd</u>		
Apr. 25	3.82		July 15	38.58		Sept. 12, 1956	25.38	
May 19	3.70		Aug. 7	37.04		Sept. 27	25.11	
June 20	3.91		Sept. 16	38.31		Dec. 5	25.30	
July 15	7.81		Oct. 16	35.73		Jan. 4, 1957	25.01	
Aug. 20	8.60		Nov. 16	38.91		Feb. 6	24.84	
Nov. 7	4.70		Dec. 12	34.47		Mar. 11	24.51	
Dec. 10	4.50		Jan. 16, 1958	34.05		June 5	23.42	
Jan. 30, 1959	4.30		Feb. 18	33.87		July 15	19.05	
Mar. 19	4.12		Mar. 13	33.67		Sept. 16	13.87	
Apr. 27	3.90		Apr. 25	33.46		Oct. 16	14.86	
June 6	3.93		May 19	32.62		Nov. 16	12.99	
June 26	4.26		June 20	32.86		Dec. 12	12.77	
Aug. 24	3.54		July 15	34.53		Jan. 16, 1958	12.73	
Oct. 13	3.41		Oct. 16	33.31		Feb. 18	12.42	
Oct. 28	6.35		Nov. 16	32.30		Mar. 13	12.69	
Dec. 10	4.73		Dec. 10	32.04		Apr. 25	12.60	
Jan. 7, 1960	4.28		Jan. 30, 1959	31.52		May 19	12.41	
Feb. 9	4.09		Mar. 19	31.09		June 20	13.36	
June 23	8.82		Apr. 27	30.61		July 15	14.50	
Apr. 13, 1962	3.30		May 11	30.54		Aug. 20	16.10	
			June 6	30.19		Nov. 7	16.46	
<u>C6-66-9bdcg</u>			June 26	31.44		Dec. 10	16.25	
Sept. 12, 1956	35.10		Aug. 24	32.23		Jan. 3, 1959	13.62	
Sept. 27	34.28		Oct. 13	31.78		Mar. 19	12.82	
Oct. 26	35.38		Oct. 28	31.31		Apr. 27	12.62	
Dec. 5	33.89		Dec. 10	30.55		May 11	12.44	
Jan. 4, 1957	33.41		Jan. 7, 1960	30.51		June 6	12.52	
Feb. 6	32.95		Feb. 8	30.17		June 26	13.28	
Mar. 11	32.73		Apr. 27	31.29		July 27	15.67	
Apr. 25	31.55		May 24	30.22		Aug. 24	27.40	
June 5	30.06		June 23	31.82		Oct. 13	17.49	
July 15	16.02		Sept. 29	31.94		Oct. 28	17.38	
Aug. 7	10.99		Jan. 16, 1961	30.21		Dec. 10	17.47	
Sept. 16	11.30		Apr. 27	30.10		Jan. 7, 1960	17.82	
Nov. 16	29.77		Sept. 21	27.24		Feb. 9	15.59	
Dec. 12	28.70		Jan. 4, 1962	26.19		Apr. 13, 1962	12.40	
Jan. 16, 1958	28.49		Apr. 13	30.10				
Feb. 18	28.82		Oct. 19	34.16		<u>C6-67-8bcba</u>		
Mar. 13	28.06		Jan. 22, 1963	33.04		July 17, 1957	6.12	
Apr. 25	28.45					Oct. 16	6.33	
May 19	28.24					Nov. 16	6.20	
June 2	27.70					Dec. 12	6.15	
Sept. 24	29.96					Jan. 16, 1958	6.55	
Nov. 7	29.10					Feb. 19	6.31	
			<u>C6-66-22bcab</u>					
			Sept. 12, 1956	34.12				
			Oct. 26	35.14				
			Dec. 5	12.73				

See footnotes at end of table.

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>C6-67-9bcb</u> --Continued			<u>C6-68-8bbb</u> --Continued			<u>C6-68-18ddb</u> --Continued		
Mar. 14, 1958		6.62	May 26, 1959		2.55	Oct. 16, 1957		+35.60
Apr. 28		6.36	June 25		2.37	Nov. 14		+32.40
May 19		6.32	July 10		2.72	Dec. 12		+31.00
June 23		6.00	Sept. 24		3.18	Jan. 13, 1958		+32.50
July 15		9.16	Oct. 26		3.55	Feb. 18		+31.00
Aug. 21		6.20	Dec. 11		3.39	Mar. 18		+33.00
Sept. 25		6.10	Jan. 7, 1960		4.08	Apr. 22		+32.80
Nov. 7		6.92	Feb. 9		4.09	May 21		+33.00
Dec. 10		14.73	Mar. 22		4.15	June 22		+31.75
Feb. 2, 1959		7.38	Apr. 26		4.20	July 16		+32.50
Mar. 17		6.93	May 23		3.83	Aug. 21		+32.50
Apr. 18		6.08	June 23		4.55	Sept. 25		+25.50
June 2		9.79	Sept. 29		6.54	Nov. 5		+30.20
June 26		14.25	Jan. 13, 1961		7.04	Dec. 9		+31.80
July 23		20.71	Apr. 27		6.35	Feb. 2, 1959		+32.10
Sept. 24		15.80	July 5		5.41	Mar. 18		+30.70
Oct. 26		26.10	Sept. 22		8.04	Apr. 18		+31.00
Dec. 11		12.04	Jan. 1, 1962		8.65	May 26		+31.20
Jan. 8, 1960		29.67	Apr. 5		9.59	June 25		+30.70
Feb. 9		52.68	Sept. 28		11.69	Sept. 24		+29.10
Mar. 30		29.47	Jan. 21, 1963		14.42	Oct. 26		+30.20
Apr. 26		15.50				Dec. 15		+30.70
May 24		18.27	<u>C6-68-18abcb</u>			Jan. 3, 1960		+29.75
June 27		12.81	Sept. 12, 1956		7.76	Feb. 9		+29.45
Sept. 29		21.43	Oct. 29		7.24	Mar. 28		+29.60
Jan. 13, 1961		10.89	Dec. 1		7.76	Apr. 26		+29.90
Apr. 27		35.40	Jan. 2, 1957		7.62	May 23		+29.40
July 5		11.45	Feb. 4		7.48	June 23		+30.70
Apr. 21, 1962		21.78	Mar. 5		7.38	Sept. 28		+28.70
Oct. 1		8.24	June 7		5.80	Jan. 13, 1961		+29.00
<u>C6-68-7ccc2</u>			July 3		7.79	Apr. 29		+32.00
Sept. 17, 1956		4.70	July 31		7.89	July 5		+29.30
Sept. 27		4.87	Sept. 4		8.33	Jan. 3, 1962		+29.40
Dec. 3		4.95	Oct. 16		7.45	Apr. 21		+28.80
Jan. 2, 1957		4.44	Nov. 14		7.14	Oct. 1		+27.20
Feb. 4		3.90	Dec. 12		6.88	Feb. 5, 1963		+26.70
Mar. 5		3.53	Jan. 13, 1958		6.86	<u>C6-68-18dddb</u>		
Apr. 18		2.15	Feb. 18		6.87	Sept. 17, 1956		1.55
June 4		1.34	Mar. 18		6.94	Oct. 29		1.53
July 3		2.83	Apr. 22		7.05	Dec. 3		.82
July 31		3.16	May 21		7.57	Jan. 2, 1957		.60
Sept. 14		3.74	June 23		8.32	Feb. 4		.29
Oct. 16		5.64	July 16		10.43	Mar. 5		.13
Nov. 14		2.86	Aug. 21		10.54	Apr. 18		.52
Dec. 12		2.85	Apr. 18, 1959		7.14	June 7		.65
Jan. 13, 1958		2.80	May 26		7.27	July 31		.47
Feb. 18		2.64	June 25		8.31	Sept. 4		.22
Mar. 18		2.48	Sept. 24		8.98	Oct. 16		.19
Apr. 22		2.70	Oct. 26		8.17	Nov. 14		.28
May 21		4.70	Dec. 15		7.17	Dec. 12		.58
June 23		3.24	Jan. 8, 1960		7.25	Oct. 1, 1962		.22
July 16		6.17	Feb. 9		7.09	<u>C6-69-2ddab</u>		
Aug. 21		4.64	Sept. 28		8.72	Sept. 13, 1956		28.15
Sept. 25		7.09	Oct. 1		8.18	Sept. 28		29.36
Nov. 5		5.73	<u>C6-68-18dabb</u>			Oct. 24		30.47
Dec. 9		3.90	Sept. 17, 1956		7.08	Dec. 3		29.82
Feb. 2, 1959		3.16	Sept. 27		7.02	Jan. 2, 1957		31.51
Mar. 18		2.90	Oct. 29		6.97	Feb. 4		30.61
Apr. 18		2.42	Dec. 3		6.92	Mar. 5		30.60
May 26		2.67	Jan. 2, 1957		6.99	Apr. 18		30.63
June 26		5.25	Feb. 4		6.64	June 4		26.79
Sept. 24		5.54	Mar. 5		6.76	July 8		23.57
Oct. 26		4.80	June 7		5.27	Aug. 5		23.44
Dec. 15		3.38	July 3		5.68	Sept. 9		24.10
Jan. 8, 1960		3.20	July 11		5.99	Oct. 14		24.61
Feb. 9		2.57	Sept. 4		6.10	Nov. 16		27.31
Mar. 22		1.56	Oct. 16		6.17	Dec. 12		28.60
Apr. 26		2.33	Nov. 14		6.10	Jan. 14, 1958		30.30
May 23		1.97	Dec. 12		6.58	Feb. 18		29.53
June 23		5.50	Jan. 13, 1958		6.40	Mar. 18		29.62
Sept. 28		7.04	Feb. 18		6.81	Apr. 22		28.92
Jan. 13, 1961		2.78	Mar. 18		6.86	May 21		27.17
Apr. 29		2.41	Apr. 22		6.90	June 23		24.52
July 5		4.47	May 21		6.60	July 16		25.05
Sept. 22		2.79	June 23		6.62	Aug. 21		25.98
Jan. 3, 1962		2.23	July 16		6.70	Sept. 25		27.84
Apr. 11		1.86	Aug. 21		6.55	Nov. 5		30.00
Oct. 1		6.12	Nov. 5		7.20	Dec. 9		29.70
Jan. 21, 1963		3.03	Dec. 9		6.79	Mar. 18		30.33
<u>C6-68-8bbb</u>			Feb. 2, 1959		6.62	Apr. 18		30.09
Aug. 7, 1957		0.67	Mar. 18		6.52	May 26		24.72
Sept. 4		.97	Apr. 18		6.27	June 25		25.02
Oct. 16		1.23	May 26		11.00	July 30		24.49
Nov. 16		1.41	June 25		17.97	Sept. 24		27.75
Dec. 12		1.53	Oct. 26		5.45	Oct. 26		28.22
Jan. 13, 1958		1.60	Dec. 15		4.70	Dec. 11		29.78
Feb. 17		1.61	Jan. 8, 1960		4.78	Jan. 3, 1960		29.98
Mar. 18		1.57	Apr. 11, 1962		8.11	Feb. 10		30.16
Apr. 22		1.57	<u>C6-68-18dddb</u>			Mar. 21		29.85
May 21		1.44	Dec. 5, 1956		+32.75	Apr. 26		28.47
June 23		1.20	Jan. 2, 1957		+32.25	May 24		27.05
July 16		1.45	Feb. 4		+32.75	June 23		25.40
Aug. 28		1.75	Mar. 5		+34.00	Sept. 28		28.53
Sept. 25		2.13	Apr. 18		+35.25	Jan. 13, 1961		30.27
Nov. 5		2.45	June 7		+34.00	Apr. 29		30.62
Dec. 9		2.72	July 3		+34.75	July 5		25.09
Feb. 2, 1959		2.72	July 11		+34.00	Sept. 22		27.31
Mar. 18		2.82	Sept. 4		+34.60	Jan. 3, 1962		30.17
Apr. 18		2.58				Apr. 11		30.44
<u>C6-68-8bbb</u>						Sept. 28		29.50
Aug. 7, 1957		0.67				Jan. 21, 1963		31.29

See footnotes at end of table.

Table 4.--Measurements of the water levels in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>C6-69-24dda.</u>			<u>C6-69-23dbbc1.--Continued</u>			<u>C7-66-3aacd.--Continued</u>		
Sept. 13, 1956		15.17	Mar. 18, 1958		6.56	Jan. 16, 1961		20.26
Oct. 1		15.90	Apr. 22		5.90	Apr. 27		18.57
Oct. 29		15.79	May 21		5.32	July 1		21.34
Dec. 3		16.11	June 23		5.67	Sept. 21		21.55
Jan. 2, 1957		16.02	July 16		6.11	Jan. 4, 1962		22.31
Feb. 4		16.05	Aug. 21		6.50	Apr. 13		21.50
Mar. 5		16.00	Apr. 18, 1959		6.62	Oct. 1		22.72
Apr. 18		15.63	Dec. 11		6.81	Jan. 22, 1963		22.94
June 4		13.19	Jan. 8, 1960		7.21	<u>C7-67-3abcd.</u>		
July 8		10.65	June 10		6.83	Jan. 11, 1957		536.25
Aug. 5		10.47	Apr. 11, 1962		5.82	Feb. 17, 1958		631.4
Sept. 4		12.20	<u>C6-69-23dbcd.</u>			Mar. 18		607.9
Oct. 14		12.63	Sept. 13, 1956		10.90	Apr. 28		615.97
Nov. 16		13.99	Sept. 28		11.13	May 19		615.10
Dec. 12		14.84	Oct. 29		11.84	June 23		617.25
Jan. 14, 1958		15.55	Dec. 3		12.12	Aug. 21		615.8
Feb. 18		16.10	Jan. 2, 1957		12.42	Sept. 25		618.5
Mar. 18		15.69	Feb. 4		12.18	Nov. 7		617.3
Apr. 22		14.57	Mar. 5		12.30	Dec. 10		618.7
May 21		11.74	Apr. 18		9.07	Feb. 6, 1959		619.1
June 23		12.89	June 4		7.58	Mar. 17		620.1
Aug. 21		14.18	July 7		8.82	Apr. 21		623.6
Apr. 18, 1959		15.88	July 3		4.83	June 2		615.8
Dec. 11		16.44	Sept. 4		5.03	June 26		618.3
Jan. 8, 1960		16.76	Oct. 14		5.68	July 30		610.0
Feb. 10		16.42	Nov. 16		5.23	Oct. 8		625.6
Sept. 28		15.88	Dec. 12		5.68	Oct. 28		613.7
Jan. 3, 1962		16.97	Jan. 14, 1958		6.10	Dec. 11		615.4
Apr. 11		16.69	Jan. 18		6.18	Jan. 12, 1960		609.2
Sept. 28		17.54	Mar. 18		5.92	Jan. 24, 1961		606.4
<u>C6-69-23dbbb2.</u>			Apr. 22		4.96	<u>C7-67-3abcd2.</u>		
Sept. 4, 1957		5.84	May 21		4.24	Jan. 12, 1960		519.0
Oct. 14		6.46	June 23		4.90	Feb. 8		511.3
Nov. 16		6.02	July 16		5.34	Mar. 22		511.4
Dec. 12		6.32	Aug. 21		5.74	Apr. 26		507.1
Jan. 14, 1958		6.72	Apr. 18, 1959		5.89	May 23		515.4
Mar. 18		6.32	July 30		5.44	June 27		505.5
May 21		5.34	Dec. 11		6.26	Jan. 24, 1961		500.9
July 16		6.17	Jan. 8, 1960		6.41	Apr. 29		494.0
Apr. 18, 1959		6.60	Feb. 10		6.33	July 5		495.1
July 30		6.34	<u>C6-69-26bdca.</u>			<u>C7-67-27abad.</u>		
Dec. 11		6.87	Sept. 18, 1956		6.18	Sept. 24, 1959		166.88
Jan. 8, 1960		6.95	Sept. 28		6.38	Dec. 11		166.55
Feb. 10		6.81	Jan. 2, 1957		6.82	Jan. 7, 1960		166.60
Mar. 21		5.93	Feb. 4		6.84	Feb. 8		165.49
Apr. 11, 1962		5.82	Mar. 5		6.70	Mar. 22		166.15
<u>C6-69-23dbbc3.</u>			Apr. 18		6.10	Apr. 26		163.96
Sept. 13, 1956		13.94	June 4		3.82	May 23		165.52
Sept. 28		13.51	July 8		3.87	June 23		166.23
Oct. 29		15.15	July 31		4.15	Sept. 29		167.88
Dec. 3		15.67	Sept. 4		4.89	Jan. 13, 1961		168.81
Jan. 2, 1957		15.84	Oct. 14		5.14	Apr. 27		169.48
Feb. 4		15.67	Nov. 16		4.77	July 3		170.22
Mar. 5		15.77	Dec. 12		5.27	Jan. 4, 1962		169.89
Apr. 18		12.57	Feb. 18, 1958		5.91	Apr. 5		169.30
June 4		12.41	Mar. 18		5.57	Jan. 22, 1963		207.93
July 8		11.81	Apr. 22		4.17	<u>C7-68-5dabb.</u>		
July 31		6.46	May 21		3.30	Oct. 20, 1959		180.93
Jan. 14, 1958		7.15	June 23		4.70	Oct. 26		181.71
Feb. 18		7.07	July 16		4.66	Jan. 7, 1960		180.58
Mar. 18		6.92	Aug. 21		5.10	Feb. 9		177.74
Apr. 22		6.19	Sept. 25		5.47	Mar. 21		177.90
May 21		5.58	Nov. 5		5.80	Apr. 26		174.60
June 23		5.97	Dec. 9		6.30	May 23		177.64
July 16		6.18	Feb. 2, 1959		6.80	June 21		180.27
Aug. 21		5.90	Mar. 18		7.35	Sept. 29		183.24
Apr. 18, 1959		6.99	Apr. 18		6.02	Jan. 13, 1961		178.55
Sept. 24		7.11	May 26		4.97	Apr. 27		176.10
Oct. 26		6.99	June 25		4.14	July 3		181.17
Dec. 11		7.31	July 10		4.90	Jan. 4, 1962		176.43
Jan. 8, 1960		7.39	Oct. 26		5.33	Apr. 5		175.99
Feb. 10		7.26	Dec. 11		7.47	Oct. 1		178.34
Apr. 26		6.40	Jan. 8, 1960		6.09	Jan. 21, 1963		179.75
May 24		6.19	Feb. 9		6.03	<u>C7-68-11dbad.</u>		
June 23		6.35	Mar. 21		5.55	Sept. 25, 1959		214.00
Jan. 13, 1961		7.33	Apr. 26		4.65	Dec. 11		202.30
July 5		6.98	May 24		4.26	Jan. 7, 1960		190.90
Jan. 3, 1962		7.00	June 23		4.57	Feb. 9		191.92
Apr. 11		6.24	Sept. 28		5.81	Mar. 30		197.45
Oct. 1		7.22	Jan. 13, 1961		6.98	Apr. 26		197.85
Jan. 21, 1963		7.64	Apr. 29		6.17	May 23		207.25
<u>C6-69-23dbbc4.</u>			July 5		5.28	June 23		206.95
Sept. 13, 1956		15.50	Sept. 22		5.60	Sept. 29		205.75
Sept. 28		16.07	Jan. 3, 1962		6.22	Jan. 13, 1961		205.05
Oct. 29		16.82	Apr. 11		1.91	Apr. 27		201.55
Dec. 3		17.60	Oct. 1		6.26	July 3		200.95
Jan. 2, 1957		17.68	Jan. 21, 1963		11.66	Sept. 20		199.15
Feb. 4		17.51	<u>C7-66-3aacd.</u>			Jan. 4, 1962		198.65
Mar. 5		17.67	Oct. 13, 1959		21.14	Apr. 5		197.75
Apr. 18		12.27	Oct. 28		20.92	Oct. 1		197.95
June 4		14.74	Dec. 11		20.19	Jan. 21, 1963		191.80
July 8		14.45	Jan. 7, 1960		20.49	<u>C8-66-3adas.</u>		
July 31		6.26	Feb. 9		19.74	Oct. 13, 1959		4.53
Oct. 14		6.47	Mar. 21		17.13	Oct. 28		4.50
Nov. 16		6.04	Apr. 27		17.96	Dec. 11		4.42
Dec. 12		6.34	May 24		17.56			
Jan. 14, 1958		6.81	June 23		18.86			
Feb. 18		6.70	Sept. 29		22.02			

See footnotes at end of table.

Table 4.--Measurements of the water levels in wells--Continued

Location number	Date	Water level		
<u>CG-66-Jada.</u> --Continued				
	Jan. 7, 1960	4.41		
	Feb. 9	4.46		
	Apr. 27	2.19		
	May 24	1.84		
	June 23	2.90		
	Sept. 29	4.33		
	Jan. 16, 1961	4.35		
	Apr. 27	2.42		
	July 1	3.11		
	Sept. 20	2.70		
	Jan. 4, 1962	3.31		
	Apr. 13	.30		
	Oct. 1	4.14		
	Jan. 22, 1963	4.39		
<u>CG-67-11baab.</u>				
	Feb. 4, 1958	9.26		
	Mar. 13	10.39		
	Apr. 28	9.88		
	May 19	10.17		
	June 23	12.59		
	July 15	13.31		
	Aug. 21	13.22		
	Sept. 25	12.18		
	Nov. 7	10.65		
	Dec. 10	12.10		
	Feb. 6, 1959	11.76		
	Mar. 17	12.03		
	Apr. 21	11.88		
	June 2	12.47		
	June 26	14.84		
	July 23	16.48		
	Sept. 24	17.58		
	Oct. 26	14.22		
	Dec. 11	13.38		
	Jan. 7, 1960	10.84		
	Feb. 8	10.98		
	Mar. 22	9.83		
	Apr. 26	12.50		
	May 23	11.42		
	June 23	13.63		
	Sept. 29	14.91		
	Jan. 13, 1961	9.67		
	Jan. 16	10.01		
	Apr. 27	9.45		
	July 3	15.12		
	Sept. 20	12.10		
	Sept. 4, 1962	9.65		
	Jan. 11	10.45		
	Apr. 1	18.75		
	Oct. 1	18.75		
	Jan. 22, 1963	12.82		

1/ Measured by the Denver Country Club.  
2/ Measured by Shwayder Bros. Inc.

Table 3.--Chemical analyses of water from wells and springs  
(Analytical results in parts per million except as indicated)

Geologic sources: PC, Precambrian; PF, Fountain Formation; FI, Lyons Sandstone; Ks, South  
Platte Formation of the Dakota Group; Ed, Benton Shale; Et, transition zone; Kfs, Milliken  
Sandstone Member of the Fox Hills Sandstone; Kf, Fox Hills Sandstone; Kls, a sandstone of  
the Laramie Formation; Klb, a sandstone of the Laramie Formation; Klm, upper part of the  
Laramie Formation; Klc, lower conglomerate of the Laramie Formation; Kld, upper part of the  
middle conglomerate of the Laramie Formation; Klf, middle conglomerate of the Laramie  
Formation; Klg, upper conglomerate of the Laramie Formation; Klh, upper part of the Devonian  
Formation; Kli, upper conglomerate of the Devonian Formation; Klm, middle conglomerate of the Devonian  
Formation; Kln, upper conglomerate of the Devonian Formation; Kio, upper part of the Devonian  
Formation; Kip, Devonian Formation; Kq, Rocky Flats Alluvium; Kq, Verdes Alluvium; Kq, Glacium  
Alluvium; Kq, Louisa Alluvium; Kq, younger loess; Kq, Broadway Alluvium; Kq, pre-Piney  
Creek alluvium; Kq, colluvium; Kq, Piney Creek Alluvium; Kq, colluvium; Kq, post-Piney  
Creek alluvium.

Depth of well: Measured depths of wells less than 100 feet are given in feet and  
tenths below land-surface datum. R, reported depth.

Source of data: a, U. S. Geological Survey; b, Colorado State Public Health Depart-  
ment; c, Colorado State University; d, commercial or private laboratory.

Remarks: Al, aluminum; As, arsenic; Cu, copper; Fe, iron; I, iodine; OH, hydroxide;  
PO<sub>4</sub>, phosphate; Br, strontium; Zn, zinc.

Location number	Geologic source	Depth of well (feet)	Date of collec- tion (yr)	Tem- pera- ture (°F)	Iron (Pp)	Manganese (Pp)	Calcium (Ca)	Mag- nesium (Mg)	Sodium (Na)	Potash (K) (HCO <sub>3</sub> ) 1/3	Bicarbonate (HCO <sub>3</sub> ) 1/3	Chloride (Cl)	Fluor- ide (F)	Hi- trate (HCO <sub>3</sub> )	Boron (B)	Dissolved solids (calcu- lated) (Pp)	Hardness as CaCO <sub>3</sub> (calcu- lated)	Hardness as CaCO <sub>3</sub> (Pp)	Per- cent anion ratio	Specific conduct- ance (micro- mhos at 25°C)	Source of data				
31-66- 31cedd	Q, Ql	31.8	10-5-55	55	0.01	..	170	..	31	170	9.1	414	343	122	1.2	40	0.64	1,110	552	213	40	3.2	1,660	7.5	a
31-66- 31bacc	Q, Ql	708	9-10-57	56	..	..	88	..	39	92	4.1	316	162	95	1.9	24	..	690	380	121	34	2.1	1,100	7.9	a
31-66- 31bacc	Q, Ql	428	9-21-60	57	..	..	0.03	196	..	168	..	362	425	155	1.3	59	..	1,240	612	337	36	2.9	1,840	7.1	a
31-66- 31bacc	Q, Ql	338	..	..	..	..	..	..	..	..	..	276	314	116	1.6	..	..	..	640	..	..	..	..	..	b
31-66- 31bacc	Q, Ql	338	1950	..	..	..	..	..	..	..	..	284	277	122	1.4	..	..	..	488	255	..	..	..	..	b
31-66- 31bacc	Q, Ql	55.9	7-13-60	..	..	..	..	..	..	..	..	261	241	106	1.1	..	..	..	401	187	39	2.6	1,200	..	b
31-66- 31bacc	Q, Ql	618	7-13-60	..	..	..	..	..	..	..	..	346	295	106	..	..	..	..	359	..	..	..	..	..	b
31-66- 31bacc	Q, Ql	39.5	4-5-62	..	..	..	..	..	..	..	..	346	300	119	..	..	..	..	492	209	34	2.3	1,410	7.4	a
31-66- 31bacc	Q, Ql	528	4-5-62	..	..	..	..	..	..	..	..	405	187	85	..	..	..	..	517	176	34	2.3	1,200	7.4	a
31-66- 31bacc	Q, Ql	16.0	4-5-62	..	..	..	..	..	..	..	..	405	187	85	..	..	..	..	456	124	32	2.0	1,240	7.3	a
31-67- 31cedd	Klb	8238	3-5-58	..	8.2	4.9	..	174	21	1,000	6.0	292	1,960	362	1.8	1.0	..	3,680	222	283	80	19	5,040	7.9	a
31-67- 31cedd	Q, Ql	358	4-5-62	..	23	1.5	..	165	35	134	4.8	407	325	116	..	22	..	1,050	222	222	34	2.5	1,570	7.1	a
31-68- 10-bcc	Klb	8098	2-11-59	63	..	..	..	38	15	338	3.2	560	348	36	2.8	8.5	..	1,060	156	0	82	12	1,930	7.7	a
31-68- 10-bcc	Q, Ql	488	2-11-59	54	..	..	..	147	80	382	4.0	508	580	40	4.2	38	..	1,960	696	282	54	42	2,660	7.9	a
31-68- 19-bacc	Klb	8658	1-22-59	64	..	..	..	1.6	..	276	1.0	603	2.9	67	3.2	..	..	649	8	0	90	42	1,120	7.8	a
31-68- 25-bacc	Q, Kalc, Klb	5308	6-8-59	..	..	..	..	230	97	3,186	..	193	1,190	55	..	..	..	5,090	748	590	50	51	..	7.8	a
31-68- 30-bacc	Klb	1,0458	9-12-60	75	12	..	..	..	1.0	340	..	689	19	118	4.3	1.1	..	837	11	0	97	45	1,430	8.3	a
31-68- 30-bacc	Klb, Klb, Klb, Klb, Klb	5238	9-21-60	61	9.8	..	..	..	..	123	..	280	30	362	5.8	2.5	..	312	6	0	97	22	516	8.1	a
31-69- 11-bcc	Q, Ql	148	1-5-58	59	..	..	..	74	69	220	1.2	722	299	25	2.0	9.4	..	1,050	468	0	50	4.4	1,600	7.6	a
31-69- 11-bcc	Klb	4808	1-27-59	..	..	..	..	1.6	..	188	..	479	3.7	16	1.0	..	..	448	6	0	98	31	765	8.9	a
31-69- 35-bacc	Klb, Klb, Klb, Klb, Klb	1,0228	9-19-60	71	12	..	..	..	..	218	..	470	35	33	1.4	..	..	532	3	0	99	51	859	7.6	a
31-69- 35-bacc	Klb, Klb, Klb, Klb, Klb	1,053	6-19-60	70	9.3	..	..	..	9	222	..	514	14	36	1.4	..	..	538	6	0	98	33	916	8.6	a
31-69- 35-bacc	Klb, Klb, Klb, Klb, Klb	2488	3-5-58	..	11	..	..	..	1.3	129	1.8	302	3.3	37	1.0	..	..	343	30	0	90	10	571	8.2	a
31-69- 35-bacc	Klb, Klb, Klb, Klb, Klb	4558	3-9-56	..	9.0	..	..	..	..	183	..	170	218	53	2.4	..	..	554	36	0	91	13	934	8.0	a
31-69- 35-bacc	Klb, Klb, Klb, Klb, Klb	3008	..	..	..	..	..	..	..	448	..	133	1,190	214	1.2	2.6	..	2,080	492	383	66	8.8	2,780	7.7	a
31-69- 35-bacc	Q, Ql	14.5	..	..	..	..	..	..	..	365	..	222	1,270	119	1.6	..	..	2,170	842	660	48	5.5	2,870	7.1	a
31-69- 35-bacc	Klb, Klb, Klb, Klb, Klb	173	11-9-54	..	..	..	..	..	..	327	..	168	539	43	2.2	1.8	..	1,080	44	0	94	21	1,570	8.8	a
31-69- 35-bacc	Klb, Klb, Klb, Klb, Klb	7008	10-7-55	..	..	..	..	..	..	77	..	182	17	3.0	2.0	..	..	203	4	0	97	17	336	8.8	a
31-69- 35-bacc	Q, Ql	12.1	10-3-55	..	..	..	..	..	..	251	..	273	228	190	..	..	..	799	104	0	83	11	1,380	8.8	a
31-69- 35-bacc	Q, Ql	28.7	10-3-55	..	..	..	..	..	..	179	..	576	345	89	1.2	..	..	1,080	465	0	45	3.6	1,720	7.6	a
31-69- 35-bacc	Q, Ql	41.2	10-3-55	..	..	..	..	..	..	82	..	309	91	43	1.4	35	..	522	258	5	40	2.2	845	7.8	a
31-69- 35-bacc	Q, Ql	49.2	10-3-55	..	..	..	..	..	..	72	..	338	116	50	1.0	21	..	564	326	49	32	1.7	916	7.8	a

See footnotes at end of table.

Table 5.--Chemical analyses of water from wells and springs--Continued

Location number	Biologic source	Depth of well (feet)	Date of collection	Time of day	Iron (ppm)	Manganese (ppm)	Calcium (Ca) (mg)	Magnesium (Mg) (mg)	Sodium (Na) (mg)	Potassium (K) (mg)	Bicarbonate (HCO <sub>3</sub> ) (mg/l)	Fluoride (F) (ppm)	Chloride (Cl) (ppm)	Disolved solids (calculated) (mg/l)	Hardness as CaCO <sub>3</sub> (mg/l)	Monocarbonate hardness as CaCO <sub>3</sub> (mg/l)	Per cent adsorbed (micrograms per milligram)	pH	Source of data	Remarks
CD-67-																				
10000	Q	42.5	3-9-56	..	..	..	..	..	..	..	..	..	149	400	..	..	..	..	1.820	..
10001	Q	128	10-8-55	..	..	..	134	31	111	6.0	325	1.6	106	325	464	197	34	2.2	1.340	..
10002	Q	10.8	10-8-55	..	..	..	136	33	108	..	296	1.2	144	220	474	231	33	2.2	1.370	..
10003	Q	338	10-8-55	..	..	..	114	68	53	..	309	1.0	110	500	324	5	26	1.3	1.770	..
10004	Q	13.1	9-15-55	57	25	..	213	68	141	3.2	308	1.8	356	1,280	786	538	28	2.2	2,120	PO <sub>4</sub> 0.1
10005	Q	128	10-8-55	..	..	..	61	17	110	6.7	248	1.0	87	558	223	20	51	3.2	950	..
10006	Q	458	9-15-55	54	..	..	269	76	158	3.3	302	1.6	506	1,550	984	736	26	2.2	2,550	..
10007	Q	508	11-15-55	..	..	..	242	60	177	3	307	1.2	326	1,770	850	598	31	2.6	2,310	..
10008	Q	688	..	..	..	..	228	65	156	3.9	313	1.6	371	1,702	836	579	29	2.4	2,250	..
10009	Q	..	..	..	..	..	161	47	76	2.3	300	1.2	136	917	596	350	22	1.4	1,440	PO <sub>4</sub> 0.15
10010	Q	7328	9-13-60	62	9.8	0.13	2.4	..	99	..	241	3.5	12	256	6	0	99	25	392	Al 0.2, PO <sub>4</sub> 5.3
10011	Q	46.3	9-15-55	54	..	..	188	47	110	2.4	331	1.4	236	1,070	664	393	26	1.9	1,720	..
10012	Q	41.9	..	..	..	..	147	42	114	2.7	380	1.2	112	949	538	226	31	2.1	1,450	..
10013	Q	42.4	9-15-55	54	..	..	121	36	100	3.0	379	1.0	105	779	448	137	32	2.1	1,250	..
10014	Q	32.8	9-20-55	55	..	..	181	52	134	2.8	348	1.6	238	1,130	666	381	30	2.3	1,820	..
10015	Q	528	9-20-55	..	..	..	250	75	152	3.4	384	1.6	465	1,440	932	666	26	2.2	2,470	..
10016	Q	528	9-11-57	..	..	..	475	116	254	5.0	310	1.2	1,100	2,310	1,660	1,410	25	2.7	4,240	..
10017	Q	34.4	5-16-56	..	..	..	466	126	260	6.4	304	1.2	1,200	..	1,760	1,510	24	2.7	4,240	..
10018	Q	39.8	11-25-55	56	..	..	170	43	121	2.4	392	1.4	172	1,010	600	279	30	2.1	1,600	..
10019	Q	39.5	11-17-54	54	..	..	136	35	161	3.4	428	1.6	106	1,000	484	134	42	3.2	1,950	..
10020	Q	558	9-12-55	54	..	..	133	37	107	3.2	406	1.2	124	846	486	153	32	2.1	1,360	..
10021	Q	26.3	3-10-56	53	..	..	128	37	116	..	460	1.2	130	833	472	95	34	2.3	1,380	..
10022	Q	30.8	9-12-55	55	..	..	..	..	..	..	..	..	220	..	158	0	..	..	1,580	..
10023	Q	40.5	9-15-55	..	..	..	122	75	498	40	1,710	1.5	194	1,820	612	0	62	8.8	3,030	..
10024	Q	26.0	5-5-55	57	15	..	114	24	428	5.0	230	1.4	184	1,740	382	193	71	9.5	2,520	..
10025	Q	51.1	9-9-55	53	26	..	208	61	244	3.7	406	1.2	290	1,570	770	437	41	3.8	2,380	..
10026	Q	558	9-9-55	53	28	..	183	58	195	3.1	458	1.2	130	1,370	696	320	38	3.2	1,980	..
10027	Q	4508	3-8-56	..	..	..	..	..	..	..	..	..	385	..	296	..	..	..	2,730	..
10028	Q	8438	1949	..	..	..	..	..	..	..	340	4.5	11	..	3.2	0	..	..	..	..
10029	Q	8438	3-12-56	..	..	..	..	..	178	..	469	5.0	4.0	..	9	0	97	26	713	8.2
10030	Q	46.6	9-17-55	57	22	..	161	40	144	3.0	414	1.2	114	1,060	568	229	35	2.6	1,590	..
10031	Q	40.0	11-13-55	54	..	..	..	..	143	3.1	384	1.2	285	1,290	720	405	30	2.3	1,910	..
10032	Q	40.7	9-12-55	54	22	..	320	82	210	4.1	386	1.8	640	1,880	1,140	873	29	2.7	3,050	..
10033	Q	47.8	9-17-55	58	23	..	142	35	160	2.7	438	1.6	137	1,030	498	139	41	3.1	1,580	..
10034	Q	34.5	5-9-56	54	..	..	536	131	360	5.2	296	1.4	1,400	1,800	1,630	1,630	29	3.6	5,130	..
10035	Q	34.5	9-11-57	53	28	..	505	112	381	9.0	370	1.6	1,300	2,870	1,720	1,720	32	4.0	4,890	..
10036	Q	29.6	9-17-55	..	..	..	313	59	161	4.9	288	1.8	660	1,570	1,020	782	25	2.2	2,810	..
10037	Q	38.8	9-17-55	54	22	..	285	72	183	5.1	297	1.8	656	1,610	1,010	766	28	2.5	2,830	..
10038	Q	438	9-21-55	54	24	..	230	61	233	4.7	282	1.8	640	1,520	824	593	38	3.5	2,740	PO <sub>4</sub> 0.1
10039	Q	438	9-17-55	55	21	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
10040	Q	34.5	3-8-56	..	..	..	1.9	..	100	..	260	3.2	3.0	252	5	0	98	19	424	8.7
10041	Q	38.8	9-17-55	55	20	..	118	23	96	3.3	386	1.2	82	699	388	71	35	2.1	1,140	..
10042	Q	40.3	9-21-55	54	24	..	140	33	73	3.2	288	1.0	140	1,765	486	250	24	1.4	1,240	..
10043	Q	438	9-21-55	56	24	..	143	30	73	3.1	284	1.0	136	810	512	279	24	1.4	1,300	..
10044	Q	438	9-21-55	54	24	..	..	..	98	3.4	314	1.0	136	..	740	481	22	1.6	1,690	..
10045	Q	438	9-21-55	54	24	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
10046	Q	42.5	9-21-55	..	..	..	131	28	73	3.4	280	1.4	114	726	444	214	26	1.5	1,170	..
10047	Q	44.2	9-17-55	..	..	..	132	29	71	3.1	340	1.6	114	716	448	186	25	1.5	1,600	..
10048	Q	44.2	8-12-58	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
10049	Q	38.8	9-17-55	55	24	..	203	49	105	4.0	292	1.5	380	1,070	708	469	24	1.7	1,910	PO <sub>4</sub> 0.1
10050	Q	148	11-21-55	55	24	..	174	26	89	5.3	289	1.8	89	921	540	303	26	1.7	1,370	..

See footnotes at end of table.

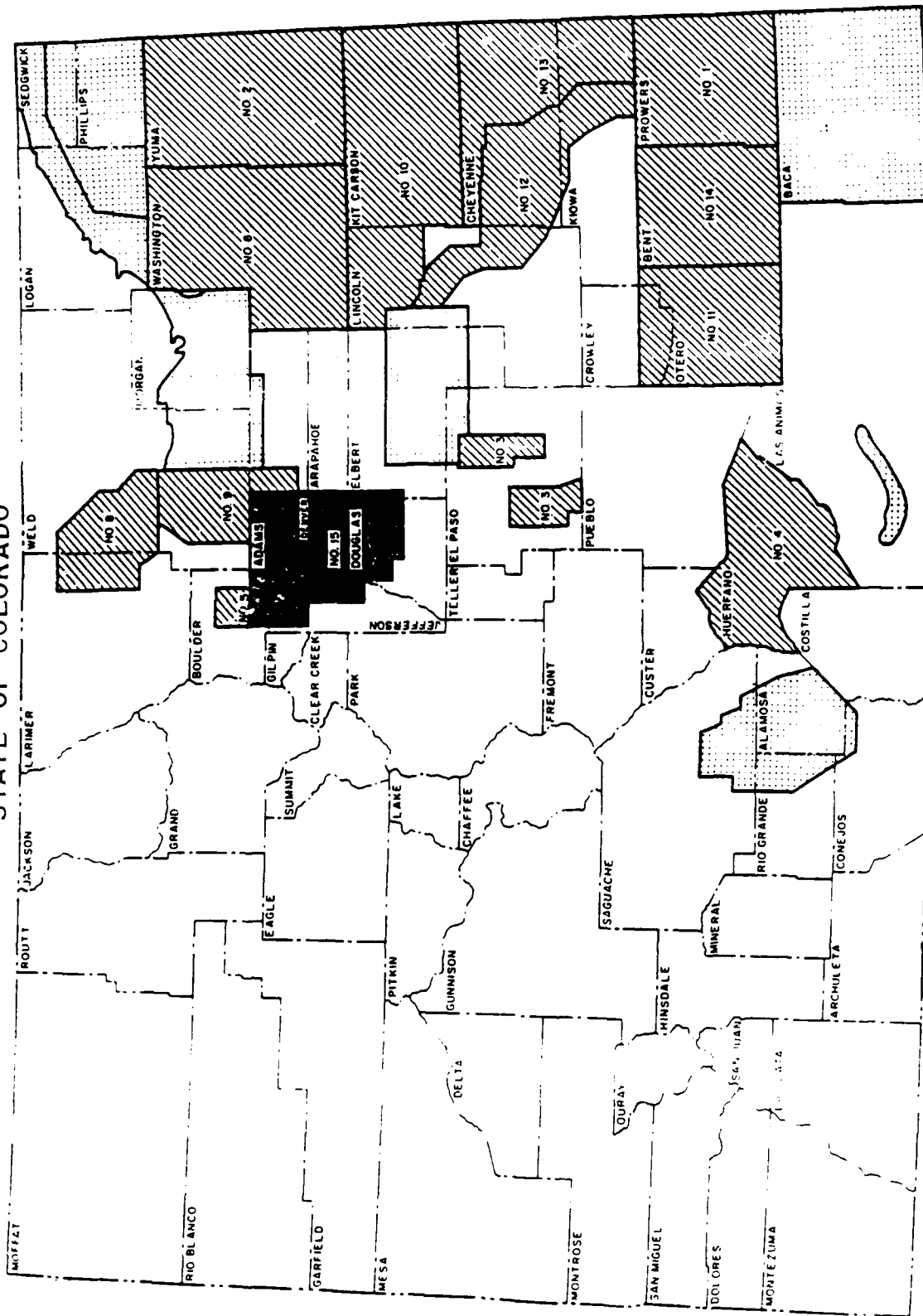
Table 2.-Chemical analyses of water from wells and springs--Continued

Location number	Geologic source	Depth of well (feet)	Date of collection	Temp. (°F)	Silica (SiO <sub>2</sub> )	Iron (Fe)	Manganese (Mn)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO <sub>3</sub> )	Fluoride (F)	Boron (B)	Dissolved solids (calculated)	Hardness as CaCO <sub>3</sub>	Municipal hardness as CaCO <sub>3</sub>	Per cent sodium	pH	Source of data		
C2-57-																						
204bda	Qp, Ql	148	9-11-57	56	..	..	..	1.9	0.1	92	4.5	296	..	92	..	..	508	265	28	1.8	1,300 8.1	
214bda	Kmc	5158	3-10-56	..	10	..	..	109	30	79	2	199	..	2.5	..	202	5	0	15	350 9.0		
214bda	Qp, Ql	52.7	9-17-55	..	22	..	..	117	20	61	3.2	252	..	175	..	605	189	26	1.4	1,100 7.7		
214bda	Qp, Ql	507.0	9-17-55	55	..	..	..	5.4	3.5	58	3.5	248	..	52	..	626	173	25	1.3	964 7.9		
224bda	Kmc	400	11-17-54	..	..	..	..	..	3.5	123	2.4	214	..	30	..	..	28	0	90	610 8.8		
224bda	Qp, Ql	..	3-10-56	..	..	..	..	..	..	82	..	197	..	3	..	..	3	0	96	344 9.0		
224bda	Ql	438	11-12-55	..	..	..	..	..	..	232	4.6	228	..	600	..	2,140	1,160	991	30	3.0	3,160 7.3	
224bda	Ql	47.1	9-17-55	55	..	..	..	196	48	96	4.2	261	..	400	..	1,030	472	23	1.6	1,040 7.5		
224bda	Ql	45.7	9-20-55	..	22	..	..	318	100	135	5.1	220	..	944	..	1,830	1,200	16	1.8	3,440 7.8		
224bda	Ql	47.6	9-20-55	54	21	..	..	225	62	107	4.4	200	..	586	..	1,250	712	21	1.6	2,360 7.7		
224bda	Qp, Ql	50.7	9-20-55	54	21	..	..	982	355	1,300	11	182	..	4,290	..	7,600	3,910	42	6.6	12,800 7.2		
224bda	Qp, Ql	36.5	11-9-55	..	..	..	..	..	..	..	..	..	..	178	..	..	..	..	..	PO <sub>4</sub> 0.5		
224bda	Qp, Ql	52.08	10-2-55	..	..	..	..	1.5	..	87	..	207	..	3.0	..	222	4	0	97	379 8.7		
224bda	Qp, Ql	288	10-2-55	..	26	..	..	185	60	198	2.6	302	..	148	..	1,430	462	38	3.2	2,040 7.4		
224bda	Qp, Ql	33.3	10-2-55	..	26	..	..	119	38	160	2.6	287	..	63	..	993	453	218	43	1,510 7.4		
224bda	Qp, Ql	12.045	1-27-62	260	83	0.36	..	4,420	165	13,700	918	188	..	30,200	..	50,500	12,700	70	..	01,700 6.7		
224bda	Qp, Ql	35.7	11-9-55	..	..	..	..	79	18	78	4.7	112	..	195	..	520	271	179	31	1.5	875 7.0	
224bda	Qp, Ql	57.8	10-1-55	..	1.7	..	..	8.5	2.7	78	16	154	..	73	..	333	32	0	76	576 8.7		
224bda	Qp, Ql	53.2	10-4-55	..	18	..	..	89	17	50	9.4	243	..	36	..	481	293	94	26	1.3	824 7.4	
224bda	Qp, Ql	308	9-20-55	..	24	..	..	91	13	53	3.3	272	..	36	..	488	282	59	29	1.4	771 8.0	
224bda	Ql	648	11-17-54	..	..	..	..	187	22	79	6.6	250	..	70	..	..	557	352	23	1.5	1,300 7.7	
224bda	Ql	47.6	10-4-55	..	9.7	..	..	5	3.4	60	4.2	43	..	64	..	381	121	45	2.1	641 6.8		
224bda	Qp, Ql	31.6	11-11-55	..	9.7	..	..	..	..	26	..	6	..	19	..	..	..	..	..	837 6.8		
224bda	Qp, Ql	126	..	..	5.1	..	..	27	7.4	280	1.8	175	..	69	..	952	98	0	86	1,560 7.7		
C2-58-																						
204bda	Kmc, Kalc	7808	9-23-50	68	10	..	..	6.1	..	164	..	307	..	7.4	..	467	23	0	91	15	763 7.8	
214bda	Kmc, Kalc	7108	1-10-58	62	10	..	..	1.6	..	82	..	203	..	2.0	..	210	4	0	98	18	346 8.7	
214bda	Klb, Klc	1,4468	1-10-58	77	11	..	..	1.6	..	294	1.0	681	..	64	..	714	8	0	99	45	1,210 8.2	
214bda	Qp, Ql	308	1-10-58	54	..	..	..	8.8	..	51	6.1	29	..	28	..	987	432	177	44	3.3	1,370 7.0	
214bda	Kmc, Kalc	7038	..	..	27	6.0	..	..	..	..	..	..	..	..	..	233	..	..	..	..	..	
214bda	Kmc, Kalc	7038	1-9-58	61	8.0	..	..	6.4	..	149	..	318	..	98	..	295	20	0	94	15	637 8.7	
214bda	Klb, Klc	1,5168	1-9-58	75	10	..	..	5.6	..	278	2.8	571	..	..	..	685	18	0	97	29	1,180 8.1	
214bda	Kmc, Kalc	3698	11-6-36	..	5.6	..	..	..	3.4	298	..	200	..	32	..	1,180	162	0	90	10	..	7.6
214bda	Kmc, Kalc	5428	11-23-36	..	3.2	..	..	6.6	5.4	35	..	231	..	1.0	..	384	39	0	66	2.4	..	8.1
214bda	Kmc, Kalc	6068	2-12-52	..	9	..	..	6.1	1.9	133	..	295	..	12	..	311	18	0	94	14	..	8.2
214bda	Kmc, Kalc	6068	1-9-58	61	8.0	..	..	6.4	1.0	149	..	318	..	4.0	..	395	20	0	94	14	637 8.7	
214bda	Klb, Klc	1,5168	..	..	..	..	..	..	2.8	..	..	621	..	..	..	..	..	..	..	..	..	..
214bda	Kmc, Kalc	6928	9-19-60	66	10	..	..	1.3	..	84	..	209	..	3.7	..	215	5	0	95	16	361 7.9	
214bda	Klb, Klc	1,560	9-19-60	81	14	..	..	1.3	..	260	..	544	..	90	..	640	6	0	97	46	1,100 8.2	
214bda	Qp, Ql	258	9-23-60	58	19	..	..	1.0	7.7	186	..	324	..	33	..	1,050	381	115	49	4.2	1,550 7.1	
C2-59-																						
204bda	Klb, Klc	1,1408	10-3-60	67	12	..	..	..	..	200	..	472	..	27	..	482	3	0	99	50	795 7.8	
204bda	Klb, Klc	1,1408	..	..	..	..	..	..	..	217	..	..	..	36	..	482	12	..	97	33	..	8.2
204bda	Klb, Klc	1,1408	..	..	..	..	..	..	..	266	4.2	462	..	46	..	1,200	378	0	60	5.9	1,750 7.3	
204bda	Klb, Klc	3008	5-27-59	54	..	..	..	51	15	..	..	350	..	10	..	..	..	..	..	..	697 7.8	
C2-70-																						
204bda	Qp, Ql	358	10-20-60	56	..	..	..	1.6	..	13	..	116	..	3.0	..	142	104	9	21	..	257 7.7	
204bda	Qp, Ql	358	10-20-60	56	..	..	..	1.6	..	68	..	432	..	40	..	..	..	..	..	..	1,730 8.0	
C2-71-																						
204bda	Klb, Klc	6908	9-16-60	..	12	..	..	1.1	..	95	..	262	..	14	..	263	29	0	87	7.7	442 7.5	

See footnote at end of table.



# STATE OF COLORADO



REPORTS NOT SHOWN THAT CONTAIN BASIC DATA

BASIC-DATA REPORT NO. 15 IS STATE-WIDE AND SHOWS RADIOCHEMICAL ANALYSES OF GROUND AND SURFACE WATER IN COLORADO, 1954-1961

GROUND-WATER SUPPLIES IN COLORADO, 1959-1960

NO 15

THIS REPORT

NO 1

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Table 5.--Chemical analyses of water from wells and springs--Continued

Location number	Geologic source	Depth of well (feet)	Date of collection	Temp. (°F)	Total Solids (ppm)	Iron (Fe) (ppm)	Manganese (Mn) (ppm)	Calcium (Ca) (ppm)	Magnesium (Mg) (ppm)	Sodium + Potassium (Na+K) (ppm)	Potassium (K) (ppm)	Bicarbonate (HCO <sub>3</sub> ) (ppm)	Chloride (Cl) (ppm)	Fluoride (F) (ppm)	Boron (B) (ppm)	Dissolved Solids (calculated) (ppm)	Hardness as CaCO <sub>3</sub> (ppm)	Municipal Hardness as CaCO <sub>3</sub> (ppm)	Per cent anion ratio at 25°C	pH	Source of data	Remarks		
C5-68-22c22	TKd, KMc	800R	1-16-40	..	9.1	..	..	18	1.8	63	132	68	7.0	..	..	2962/	52	0 73	3.8	..	7.8	d	Fe+Al 2.0	
22c22	KMc, KMc	1,010R	11-23-32	..	15	0.5	..	8.1	1.5	36	134	14	6.0	..	..	245	26	0 75	3.1	..	7.8	d		
22c22	KMc, KMc	1,720R	9-2-33	75	16	..	..	2.5	1.0	226	446	..	95	..	..	784	10	0 98	31	..	8.1	d		
22c22	KMc	1,700R	7-9-58	76	19	..	..	4.0	..	308	451	..	224	3.0	0.0	782	11	0 98	40	..	8.0	a		
72c22	TKd, KMc	768	5-19-56	62	..	..	..	41	1.0	148	156	244	32	1.6	..	547	106	0 75	6.2	..	8.4	a		
72c22	KMc, KMc	1,670R	7-11-57	79	..	..	..	1.6	..	267	2.0	456	145	3.2	0.0	665	6	0 99	47	..	7.9	a		
72c22	KMc	550R	2-2-56	..	..	..	..	8.0	1.0	85	1.2	152	73	1.6	..	251	24	0 86	7.5	..	8.1	a		
17c22	Qpp, Ql	41.9	1948	..	..	..	..	..	..	..	..	..	..	..	..	442	157	..	..	..	..	b		
17c22	Qpp, Ql	42.0	1-13-58	53	17	..	..	78	19	50	234	114	40	..	5.8	442	272	80	28	1.3	7.0	a		
17c22	Qpp, Ql	43.6	1948	..	..	..	..	..	..	..	..	180	29	8	..	152	152	..	..	..	..	b		
17c22	Qpp, Ql	37.9	1948	..	..	..	..	..	..	..	..	..	35	..	2.9	..	135	..	..	..	..	b	Al 0.05	
19c22	KMc, KMc	511R	..	59	12	..	..	48	14	86	297	70	34	..	..	..	178	..	0 51	2.8	..	7.8	d	PO <sub>4</sub> 0.1
21c22	KMc, KMc	1,826R	1-28-57	82	..	..	..	1.7	..	183	..	403	54	1.0	..	..	7	0 98	31	..	..	d	PO <sub>4</sub> 0.3	
27c22	KMc, KMc	996R	8-25-56	..	13	..	..	23	2.1	..	143	22	3.5	..	1.0	..	66	0 55	2.1	..	8.4	d		
27c22	KMc, KMc	11-23-60	..	..	..	..	..	..	..	..	..	..	1.0	..	..	..	..	..	..	259	..	d		
27c22	KMc, KMc	1,910R	8-25-56	..	11	..	..	7.0	1.1	58	189	18	10	1.4	1.3	289	22	0 85	5.4	..	8.3	d	Al 0.05	
28c22	KMc, KMc	1,940R	1-13-58	83	16	..	..	1.6	..	180	1.0	388	54	2.0	..	448	4	0 99	39	..	8.7	a	PO <sub>4</sub> 0.3	
C5-69-53c22	Qp	11.1	2-11-59	52	..	..	..	96	45	..	156	10	..	..	..	..	424	296	..	..	1,070	7.7	a	
53c22	Qp, Ql, Kf	90R	3-17-59	45	..	..	..	99	22	..	260	..	7	..	..	..	338	124	..	..	1,020	8.0	a	
53c22	Qp, Ql, Kf	1,660	11-22-57	62	..	..	..	..	..	..	..	..	6.0	..	..	..	..	..	..	..	261	7.4	a	
53c22	Qp, Ql, Kf	220R	4-..-59	..	..	..	..	305	287	..	284	132	..	..	..	..	1,940	1,710	..	..	4,970	7.8	a	
53c22	Qp, Ql, Kf	50R	3-16-59	42	..	..	..	117	49	..	324	11	..	..	..	..	494	1,710	..	..	926	8.1	a	
16c22	KMc	100R	6-30-54	..	..	..	..	..	..	..	328	13	..	..	..	..	403	194	..	..	2,920	7.7	a	
16c22	KMc	900	12-6-56	51	9.6	..	..	22	9.2	108	4.6	339	36	..	..	366	93	0 70	4.9	..	6.3	7.9	a	
16c22	KMc	302	6-4-57	..	..	..	..	53	4.9	6.0	1.8	154	29	..	..	177	152	26	8	..	321	6.4	a	
16c22	KMc	354	7-22-60	53	21	1.1	..	44	4.4	5.6	..	144	20	..	..	170	128	10	9	..	284	6.7	a	Al 0.2, PO <sub>4</sub> 0.02
22c22	KMc, KMc	405R	9-21-56	..	..	..	..	..	..	..	..	..	..	..	..	4972/	120	..	..	..	7.6	a		
22c22	KMc	1,580R	5-3-57	..	..	..	..	112	60	2,040	..	150	200	..	..	..	320	94	49	39	..	8.0	c	
22c22	KMc	1,580R	5-3-57	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	a	
22c22	KMc	1,580R	5-3-57	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	a	
C5-70-12c22	KMc	100R	3-16-59	55	..	..	..	41	5.8	..	86	..	2.0	..	..	197	146	33	9	..	272	7.9	a	
12c22	KMc	83R	1960	..	18	..	..	40	11	7.2	..	138	21	..	..	197	146	33	9	..	272	7.9	a	
12c22	KMc	703R	9-23-60	57	11	..	..	24	48	637	6.8	262	886	..	..	2,110	236	41	49	22	3,130	8.0	a	Al 0.3, PO <sub>4</sub> 5.4
12c22	KMc	Spring	9-23-60	65	..	..	..	18	..	159	2.4	311	133	..	..	521	216	0	79	7.2	454	8.2	a	
12c22	KMc	772	1-11-57	51	14	..	..	..	..	..	..	..	..	..	..	..	93	..	..	..	..	..	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	
C5-71-11c22	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0	25	..	245	7.1	a	</

Table 2.--Chemical analyses of water from wells and springs --Continued

Location number	Geologic source	Depth of well (feet)	Date of collection	Temp. (°F)	pH	Silica (SiO <sub>2</sub> )	Iron (Fe)	Manganese (Mn)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Potassium-Bicarbonate (K+HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Fluoride (F)	Mile (mi)	Borehole (ft)	Dissolved solids (calculated)	Hardness as CaCO <sub>3</sub>	Moncar-Per- cent adorp- tion (mic. o- nio at 25°C)	Specific conduct- ance (mic. o- nio at 25°C)	pH	Source of data	Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

See footnotes at end of table.

Table 6.--Field determination of chemical quality of water from wells and springs

Location number	Depth of well (feet) 1/	Geologic source 2/	Date of collection	Temperature (°F)	pH	Specific conductance 3/	Iron (Fe) 4/	Hardness as CaCO <sub>3</sub> 5/	Hydrogen sulfide (H <sub>2</sub> S) 6/	Chloride (Cl) 7/
B1-66-31cddd	31.8	Qb, Q1	6-23-59	55	7.1	1,700	...	453	...	...
B1-67-19dadd	697R	K1b	4-11-57	59	8.7	1,050	...	...	10	...
B1-68-25bebc	720R	K1b	4-15-58	62	8.8	1,980	...	...	< .1	...
C1-66-4dced	480R	Kdmc, Kd1c	6-11-61	59	7.3	720	0.3	222	...	38
-18cacc	32.6	Qb, Q1	10- 7-55	56	...	1,480	...	...	...	...
-30macc	43.6	Q1	10-24-55	55	...	1,470	...	...	...	...
C1-67-1cddc	693R	K1u	6-11-61	61	8.4	1,000	1.2	< 17	...	63
-1cddc2	25R	Qpp, Q1	6-11-61	50	...	...	...	308	...	...
-1dcb	...	Qpp, Q1	...	63	...	1,230	...	...	...	...
-13cma	31.7	Qb, Q1	9-27-56	55	...	1,510	...	...	...	...
-23dadd	...	Qb	...	55	...	1,230	...	...	...	...
-2kabcc	39.0	Qb, Q1	11- 6-55	55	...	1,390	...	...	...	...
-25bddd	35.2	Qb, Q1	10- 5-55	55	...	1,500	...	...	...	...
-26madd	41.1	Qb, Q1	10- 4-55	54	...	1,920	...	...	...	...
-35dcb	32.3	Qb, Q1	11- 7-55	56	...	1,320	...	...	...	...
C1-68-9bba	832R	K1b, K1a	...	...	...	1,410	...	< 17	...	...
-10cbbc	809R	K1b	2-17-59	63	8.4	1,850	...	145	...	...
-10cbbc2	48R	Qp	2-11-59	54	7.7	2,500	...	615	...	...
-19bba	869R	K1b	1-23-59	64	8.8	1,050	...	17	< .1	...
-30madd2	1,045R	Kd1c, K1b, K1a, K1u	9-12-60	72	8.7	1,420	.4	43	< .1	...
-35madd2	525R	Kdmc, Kd1c	9-21-60	62	8.6	540	.8	< 17	< .1	...
C1-69-10dabb	469R	K1b, K1a, K1u	7-28-59	...	...	1,120	...	...	...	...
-10dacc	31R	Qp	7-28-59	...	...	1,200	...	...	...	...
-11bcca	14R	Qp	1-29-59	59	7.7	1,500	...	...	...	...
-11bceb	480R	K1b	1-27-59	...	8.9	790	...	17	...	...
-22daba	650R	K1b, K1a, K1u	9-19-58	...	...	750	...	...	...	...
-35babb	1,022R	K1b, K1a, K1u	9-19-60	71	8.9	920	.4	< 17	.2	...
-35dada	1,053	K1b, K1a, K1u	10- -60	74	9.1	880	.2	17	.2	38
C1-70-21bdac	150	K1b, K1a	4-19-57	56	7.8	405	...	136	...	...
-26cbba	260	K1u	4-18-57	55	7.6	320	...	136	< .1	38
C2-65-21dadd	900R	TKdu, Kdmc, Kd1c	7- 2-53	59	7.9	700	1.3	94	...	22
C2-67-9dcdc2	732R	Kdmc, Kd1c	9-13-60	62	8.6	410	.2	17	...	...
-10ccca	59R	Qb, Q1	9-20-55	...	...	2,890	...	...	...	...
-22cadd	50.7	Qas, Qv	11-23-55	54	...	8,000	...	...	...	...
-26baca	56.5	Qb, Q1	11-23-55	59	...	875	...	...	...	...
-26becc	55.5	Qb, Q1	8- 8-55	57	...	1,350	...	...	...	...
-26cecb	60R	Qb, Q1	8- 8-55	58	...	900	...	...	...	...
C2-68-4bade	1,330R	K1b, K1a, K1u	4-23-57	69	8.7	1,380	...	17	< .1	...
-20dbee	780R	Kdmc, Kd1c	9-23-60	68	8.5	700	.5	60	...	...
-23cbbb	710R	Kdmc, Kd1c	1-10-58	62	8.6	345	...	17	...	...
-23cbbb2	1,446R	K1b, K1a	1-10-58	77	8.6	1,090	...	17	.8	...
-25madd2	30R	Qpp, Q1	1-10-58	54	6.9	1,380	...	376	...	...
-31cabb	700R	Kdmc, Kd1c	10-11-59	61	8.3	...	...	...	...	...
-31cabb2	1,546R	K1b, K1a, K1u	10-11-59	75	8.4	1,110	...	...	< .1	...
-33abdb	692R	Kdmc, Kd1c	9-19-60	66	8.7	375	...	.1	< 17	< .1
-33abdb2	1,560	K1b, K1a, K1u	4-27-57	81	8.7	1,720	...	.3	< 17	.1
-36dada2	25R	Qpp, Q1	9-23-59	58	7.1	1,500	...	...	...	...
C2-69-40dbee	196	Kd1u	8-30-56	55	7.1	1,950	...	...	...	...
-31cadd	55R	Qp, Q1	8-23-58	59	7.2	380	...	370	...	25
-32becc	23R	Qp, Q1	12-15-60	...	8.4	950	< .1	410	...	18
-32bdab	100R	Kdmc	4-21-49	56	7.2	1,500	...	172	...	100
-32dadd	117R	Kdmc	9-21-58	50	7.2	2,300	...	372	...	...
-32dab-b	100R	Kdmc	8-21-58	57	7.5	950	...	348	...	38
C2-70-26dccc	Spring	Qr	12-15-58	56	...	260	...	...	...	...
-26dada	35R	Qp, Qb	10-17-58	56	7.1	1,700	.4	68	...	...
C2-71-25aceb	Spring	pc	12- 7-60	42	...	...	...	51	...	25
C3-65-21daca	900R	TKdu, Kdmc	1-22-55	61	7.7	515	...	34	< .1	...
-36daca	785R	TKdu, Kdmc	2-12-57	61	6.2	300	...	43	...	12
-36dada	690R	TKdu, TKdc	9-16-60	66	8.4	450	.4	26	< .1	...
C3-66-10dbab	320R	TKdu	9-31-55	60	7.7	660	...	34	< .1	...
-22abbe	150R	TKdu	7- 8-57	59	7.7	425	7.7	154	...	...
-22cecc	965R	Kdmc, Kd1c	1-27-58	70	8.6	315	...	< 17	...	< 12
-30dada	410R	TKdu	10-15-56	64	8.7	350	8.7	< 17	< .1	...
-31abca	170R	TKdu	6-13-57	68	8.7	1,800	...	393	< .1	...
-31cedb	30R	Qp, Qb	8- 6-57	51	7.2	1,200	...	256	...	...
-38madd	28.9	Qb, Q1	9-20-60	54	7.3	860	.1	205	...	...
-32madd2	28.4	Qb, Q1	9-20-60	55	7.5	310	.2	243	...	...
-32madd	27.7	Qb, Q1	9-20-60	56	7.2	880	< .1	256	...	...
-32ccca	1,003R	Kdmc	7-26-56	79	8.2	275	...	17	...	...
-32dada	500R	TKdu	9-15-60	63	8.4	420	.2	25	...	...

See footnotes at end of table.

Table 2.--Chemical analyses of water from wells and springs --Continued

Location number	Geologic source	Depth of well (feet)	Date of collection	Temp. (°F)	Silica (SiO <sub>2</sub> ) (mg/l)	Iron (Fe) (mg/l)	Manganese (Mn) (mg/l)	Calcium (Ca) (mg/l)	Magnesium (Mg) (mg/l)	Sodium (Na) (mg/l)	Bicarbonate (HCO <sub>3</sub> ) (mg/l)	Sulfate (SO <sub>4</sub> ) (mg/l)	Chloride (Cl) (mg/l)	Fluoride (F) (mg/l)	Boron (B) (mg/l)	Dissolved solids (calculated as CaCO <sub>3</sub> ) (mg/l)	Hardness (calculated as CaCO <sub>3</sub> ) (mg/l)	Monocarbonate hardness (as CaCO <sub>3</sub> ) (mg/l)	Per cent carbonate hardness	Specific conductance (micro-mhos at 25°C)	Source of data	Remarks	
06-60-34acc	Ql	71.0	9-2-59	..	..	0.06	..	..	..	..	..	..	10	..	..	..	..	..	..	415	..	..	
06-60-15badd	TKdu	175R	9-17-59	..	..	..	..	..	..	..	..	..	8.0	..	..	..	262	..	..	835	7.7	..	
06-60-22bacc	Ql	47.8	9-17-59	51	..	..	..	..	..	..	..	..	14	..	..	..	..	..	..	435	..	..	
06-60-22cadd	Ql	63.4	7-14-59	53	35	..	..	62	5.8	..	2.6	202	31	9.0	0.7	15	278	13	18	432	7.5	..	
06-60-34bacc	Ql	54.8	8-24-59	47	..	..	..	..	..	..	..	..	8.0	..	..	..	..	..	..	335	..	..	
06-67-34bacc	Ql	60.9	9-2-59	51	..	..	..	..	..	..	..	..	10	..	..	..	..	..	..	417	..	..	
06-67-27cadd	TKdu	120R	12-10-59	..	34	5.5	..	34	4.9	..	1.4	92	20	3.5	..	..	105	30	11	244	7.2	..	
06-68-14badd	TKdu, Kmc, Kdu	1,012	7-16-57	60	..	..	..	64	5.8	..	6.4	188	58	4.0	..	..	184	30	23	408	8.1	..	
06-68-14bacc	TKdu, Kmc	200R	7-16-57	64	13	..	..	20	1.5	..	4.2	152	13	2.0	1.6	..	56	0	57	274	8.1	..	
06-68-33bacc	Kmc, Kile	715R	2-26-58	59	11	..	..	42	2.9	..	5.0	160	58	1.0	1.1	1.7	117	0	36	373	7.9	..	
06-69-23cadd	Ql, Qp	30R	11-5-58	..	..	..	..	55	12	..	3.6	206	57	27	1.0	8.5	..	186	18	32	571	7.4	..
06-69-23bacc	Qp, Ql	30.3	1-17-58	49	11	..	..	30	9.2	..	1.8	87	65	1.8	1.2	1.4	113	41	30	341	7.3	..	
06-69-24bacc	Klb, Kile	600R	6-25-56	..	..	..	..	6.4	1.9	..	2.2	219	53	6.0	1.8	1.1	24	0	89	491	8.3	..	
06-71-12cadd	pc	100R	7-6-60	48	22	..	..	27	6.6	..	1.4	122	6.2	1.0	1.3	..	90	0	20	214	7.7	..	
06-71-15cadd	pc	183R	7-19-60	..	20	..	..	28	8.5	..	..	128	16	1.0	1.0	1.7	105	0	16	237	7.1	..	
07-70-22cadd	Qp, Ql	69R	8-26-56	50	40	..	..	50	6.8	..	2.4	183	29	8.0	..	..	153	3	20	375	7.4	..	
07-70-34cadd	Qp, Ql	50.9	..	52	..	..	..	..	..	..	..	..	24	..	..	..	216	..	..	552	..	..	
07-67-34bacc	Kmc, Kile	1,795R	1-18-57	69	12	..	..	24	1.9	..	3.8	137	17	1.0	1.1	..	68	0	47	263	7.8	..	
07-67-34bacc	Kmc, Kile	1,795R	10-13-59	..	7.0	..	..	26	2.0	..	4.0	144	21	2.0	1.0	..	69	0	50	278	7.9	..	
07-67-34bacc	TKdu	801R	2-4-58	49	34	..	..	39	2.9	..	4.2	156	14	2.0	..	..	109	0	22	279	7.6	..	
07-67-34bacc	TKdu	801R	10-5-59	59	..	4.7	..	38	1.9	..	4.8	150	16	4.0	..	..	103	0	25	276	7.6	..	
07-68-44bacc	Kmc, Kile	800R	9-16-60	60	11	..	..	43	2.8	..	..	159	57	1.3	1.4	..	119	0	37	380	7.4	..	
07-68-13cadd	Qp, Ql	45.8	9-16-60	57	30	..	..	57	5.8	..	..	128	53	1.1	8	..	166	61	16	389	6.6	..	
08-66-10bacc	Ql	52R	2-4-58	46	36	..	..	26	4.4	..	2.4	101	16	3	..	..	83	0	20	210	7.3	..	
08-67-80cadd	TKdu	282R	..	54	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	381	..	..	
08-67-11bacc	Qp, Ql	90R	2-4-58	54	36	..	..	58	7.3	..	3.6	108	85	..	..	..	175	86	19	446	6.9	..	
08-67-11bacc	Kmc, Kile	1,608R	..	53	25	..	..	34	12	..	2.2	128	46	4.0	..	..	134	29	16	282	7.6	..	
08-67-11badd	Ql	90R	2-27-58	52	38	..	..	34	3.9	..	3.0	86	34	5.0	..	..	101	30	17	256	6.9	..	

1/ Includes CO<sub>2</sub> as HCO<sub>3</sub> when present.

2/ Residue on evaporation at 180°C.

3/ Total iron or manganese.

4/ In solution at time of sampling.

5/ As oxides.

Table 2.--Field determination of chemical quality of water from wells and springs--Continued

Location number	Depth of well (feet)	Geologic source	Date of collection	Temperature (°F)	pH	Specific conductance	Iron (Fe) $\frac{\mu}{\text{g}}$	Hardness as $\text{CaCO}_3$ $\frac{\text{mg}}{\text{L}}$	Hydrogen sulfide ( $\text{H}_2\text{S}$ ) $\frac{\text{mg}}{\text{L}}$	Chloride ( $\text{Cl}$ ) $\frac{\text{mg}}{\text{L}}$
CJ-70-25dabb	110R	TKdc	8-21-58	58	8.3	850	...	38	...	50
-26bbcd	13R	Q1	7-24-58	62	6.6	300	...	142	...	25
-33aaac	108R	Kdmc	8-21-58	62	7.1	690	...	301	...	38
CJ-71-7bbac	Spring	pc	12- 7-60	49	7.0	...	...	35	...	50
-14cccd	18.5	pc	12- 2-60	58	7.6	...	...	...	...	...
Ch-66-5bcah	72R	Qy, Qs (1)	4-28-58	54	7.7	1,850	...	462	...	...
Ch-67-17dabc	34R	Qp, Qb, Q1	7-15-57	55	7.1	760	...	222	...	...
-18aacac	60R	Qb, Q1	2-13-59	55	7.2	810	...	205	...	...
-18aacd2	42.5	Qb, Q1	2-25-59	54	...	650	...	...	...	...
-21bcdac2	56.1	Qp, Qb, Q1	1-31-58	56	7.1	570	...	225	...	...
-21bdcc	38.1	Qp, Qb, Q1	7-27-59	53	7.0	770	...	200	...	...
-21cccd	40R	Qp, Qb, Q1	7-25-59	53	7.0	705	...	153	...	...
-21ccdd	45.8	Qp, Qb, Q1	7-25-59	53	7.1	705	...	200	...	...
-27cbac	52.4	Qp, Qb, Q1	3-30-60	55	7.0	710	...	222	...	...
-28aacd	50R	Qp, Qb, Q1	9-27-59	53	7.0	695	...	171	...	...
-28acba	45.1	Qp, Qb, Q1	5-15-58	52	7.1	620	...	188	...	...
-28bdca2	30R	Qp, Qb	9-14-60	...	7.0	900	0.2	171	...	...
-29abab	1,060R	Kdmc, Kdlu	7- 7-60	...	8.1	250	...	...	...	...
-34ddcb	97R	Qp, Qb, Q1	7-15-59	53	7.0	720	...	153	...	...
-34dddb	95R	Q1	7-25-59	52	6.9	730	...	145	...	...
-36aacd2	1,198	Kdmc	2-25-57	78	7.9	260	...	51	0.5	...
Ch-68-9dcd	32.2	Qpp, Qb, Q1	3-27-58	54	7.1	475	...	120	...	...
-12cccb	50R	Qp, Qb, Q1	2- 9-60	55	7.1	...	.2	872	...	...
-28dabd	17.1	Qpp, Qb	7- 3-57	52	6.8	1,550	...	...	...	...
-28dadb	35R	Qpp, Qb, Q1	5- 2-58	51	7.7	1,650	...	530	...	...
-36dddb	2,012	Klb, KLa, Kfm	8-13-58	88	8.5	930	...	< 17	< .1	...
Ch-69-7dabd	200R	TKdc	8-20-58	54	8.7	1,400	...	136	...	...
-10dcab	1,660R	Klu, Klb, KLa, Kfm	3-27-57	68	8.8	750	...	...	1.0	...
-10dcab2	500R	Kdmc	3-27-57	61	8.7	760	...	...	< .1	...
-12cdac	100R	Qp, TKdu	8- 8-60	55	7.2	4,000	.4	616	...	...
-12cdac2	65.7	Qp, TKdu	8- 8-60	60	7.5	1,750	.5	206	...	...
-15dddb	298R	TKdu, TKdc	12-15-57	59	6.7	770	...	...	...	...
-23ccac	217R	TKdu	12-14-60	...	7.7	890	< .1	94	...	50
-23cccc	83R	Qs, TKdc	5-17-62	...	7.2	1,900	.3	325	...	...
-26cccd	27.0	Qp	11-22-60	...	8.0	880	< .1	171	...	30
-31cdac	59R	Qs	3-17-59	47	7.3	1,120	...	...	...	...
Ch-70-4ebbc	90R	pc	12- 7-60	...	6.4	225	.5	50	...	12
-4daab	98R	pc	5- 1-60	50	7.9	820	.4	199	...	...
-8bbcd	18.0	pc	7-10-61	50	6.5	255	.5	94	...	...
-11bbbc	42.5	Qp	6-30-60	...	7.3	750	.6	307	...	...
-16bdab	Spring	pc	7-26-57	58	6.7	380	...	171	...	18
-23dbbc	275R	Ks	7-22-60	57	6.4	225	7.5	85	.1	...
-23dbca	48.5	Kb	7-22-60	56	6.5	500	>7.5	241	.1	...
-23dbca2	52R	Kb, Ks	7-22-60	56	6.3	500	>7.5	241	.1	...
-26dbbc	Spring	Qs	7-18-56	56	...	600	...	...	...	...
-26dbcb	Spring	Pr	7-18-56	60	...	405	...	...	...	...
-27dbaa	Spring	Pr	5-13-59	47	5.9	71	...	< 17	...	...
-27dcad	Spring	Pr	5-12-59	51	6.8	98	...	25	...	...
-27ddbc	91.1	Pr	5-13-59	61	...	405	...	...	...	...
-29adcb	88R	pc	1-17-61	57	7.1	345	.1	120	...	10
-32abac	30R	Qpp, Q1	5- 5-61	64	...	240	...	...	...	...
-34abaa	Spring	pc	5-12-59	46	6.1	31	...	< 17	...	...
CJ-65-19cbac	444R	TKdu	1-14-61	57	7.0	440	.4	105	...	15
-33cccc	677R	TKdu	9-26-57	62	7.7	370	...	...	...	...
CJ-66-6bada2	1,278R	Kdmc, Kdlc	7- 7-60	73	8.1	...	...	...	...	38
-18dcdc	60R	Qp, Qb, Q1	6- 5-57	52	6.7	705	...	256	...	...
-19cdca	1,350R	Kdmc, Kdlc	10- 3-60	67	9.3	290	.4	43	...	40
-28aac	450R	TKdc	3-25-57	59	...	630	...	154	...	...
-29baab	160R	TKdu	1-27-58	58	7.9	365	...	68	...	...
-29bbdc	55R	Qp, Qb, Q1	10-14-57	52	6.8	400	...	153	...	< 12
-29ddcc	64R	Qp, Qb, Q1	9-10-57	52	6.8	370	...	188	...	20
-30aaaa	400R	TKdu	1-27-58	56	7.9	300	...	51	...	...
-30aaaa	98R	Qp, Qb, Q1	6-17-57	53	6.9	505	...	188	.1	20
-32dcdc	31.5	Qp, Qb, Q1	7-15-57	52	7.0	460	...	170	...	...
-32dcdc	49.4	Qp, Qb, Q1	6-30-59	52	7.0	580	...	196	...	...
-33cbec	44.8	Qp, Qb, Q1	2- 2-59	52	6.9	610	...	...	...	...
-33edbd	230R	TKdu	7-14-62	58	7.7	310	.4	43	...	12
CJ-67-17dbdd	1,406R	Kdmc, Kdlc	9-16-60	73	8.3	285	.4	42	< .1	...
-18baad	772R	Kdlu	5-15-59	70	7.7	255	...	68	...	...
-19bbbb	986	Kdmc	7-25-58	70	7.7	260	...	50	< .1	< 12
CJ-68-4acda	1,700R	Klu, Klb, KLa, Kfm	7- 9-58	76	8.8	...	...	< 17	...	...
-7cccd	768	TKdu, Kdmc, Kdlu	5-18-56	62	...	850	...	...	...	...

See footnotes at end of table.



Table 6.--Field determination of chemical quality of water from wells and springs--Continued

Location number	Depth of well (feet) 1/	Geologic source 2/	Date of collection	Temperature (°F)	pH	Specific conductance 3/	Iron (Fe) 4/	Hardness as CaCO <sub>3</sub> 5/	Hydrogen sulfide (H <sub>2</sub> S) 6/	Chloride (Cl) 7/
CJ-66-33bec	41.5	Qb, Ql	9-18-60	56	7.1	740	<0.1	280	...	...
-33becb	45.3	Qb, Ql	9-18-60	55	7.3	355	.1	128	...	...
-33dded	36.1	Qb, Ql	9-18-60	55	7.3	930	.2	280	...	...
-34bbcd	525R	TKdu	3-11-57	54	8.7	295	...	17	0.1	...
CJ-67-5abed	800R	Kdmc, Kdlc	9-22-60	64	7.9	730	...	60	...	...
-5abed2	61R	Ql	9-22-60	56	7.3	1,410	.2	350	...	...
-6ddac	16.0	Qb, Ql	4-3-58	52	7.4	1,750	...	...	...	...
-7aadd	37R	Qes, Ql	4-30-58	61	7.2	1,230	...	325	...	...
-7acaa	22R	Qp, Ql	9-21-60	60	7.7	1,750	.2	437	...	...
-7acda	32R	Qp, Ql	9-22-60	59	7.7	1,520	.2	437	...	...
-18acdd2	670R	Kdmc, Kdlc	4-30-58	...	5.6	305	...	17	...	114
-19cdad	95R	Qb, Ql	4-29-58	56	7.5	1,600	...	113	...	...
-29cama	75R	Ql	4-30-58	56	7.5	2,100	.3	732	...	...
-36acdb	127R	Kdmc	7-6-57	63	8.7	335	...	47	...	...
CJ-68-5dddd	501R	Kdmc, Kdlc	9-23-60	60	8.6	345	.2	3	...	...
-10accc	715R	Kdmc, Kdlc	9-13-60	66	8.6	355	.1	17	...	...
-11ddab	640R	Kdlc	6-11-57	64	8.0	325	2.5	43	...	...
-12cbbe2	850R	Kdmc, Kdlc, Kl	6-6-57	64	...	310	...	...	...	...
-13bddd	33R	Qb, Ql	8-28-57	56	7.6	1,800	...	675	...	...
-22aabb	25.8	Qb, Ql	8-16-56	58	...	1,250	...	...	...	...
-23bbdb	64R	Qb, Ql	1-27-58	59	6.9	1,590	...	...	...	...
-27bcbd	700R	Kdmc, Kdlc	6-16-57	62	...	350	...	...	...	...
-27cadd	771R	Kdmc, Kdlc	6-4-57	64	...	325	...	...	...	...
-27cbba	700R	Kdmc, Kdlc	6-14-57	62	...	340	...	...	...	...
-35acdc	800R	Kdmc, Kdlc	7-8-57	67	...	290	...	...	...	...
CJ-69-3adcb	800R	Kdlc, Klu	6-6-57	65	...	745	...	...	...	...
-3adcb2	1,740R	Klb, Kls, Kfs	9-14-56	82	7.6	...	...	...	...	...
-5cbba	285R	Kdmc	8-12-58	60	8.5	950	...	35	...	<25
-7bmad	95.6	Kdmc	8-25-58	61	7.1	1,170	...	319	...	63
-7dbcb	430R	Kdl	2-26-57	64	8.1	670	...	35	...	25
-8babb	260R	Kdl	8-12-58	61	7.5	3,000	...	430	...	73
-8cama	352R	Kdl	8-15-58	61	8.5	830	...	35	...	73
-12acbb	11.0	Qpp, Qb	11-29-57	50	7.7	1,550	...	428	...	66
-14cdcc	8.5	Qpp, Ql	11-29-57	41	7.5	1,200	...	342	...	73
-17adcc	53R	Qs, TKdu	8-20-58	57	7.2	950	...	425	...	30
-17becr	80R	Qs, Kdmc	4-29-58	50	7.5	2,100	...	282	...	18
-17cbaa	72R	Qs	8-23-58	61	7.2	775	...	407	...	38
-18acdc	45R	Qs	8-25-58	63	7.4	950	...	478	...	63
-18cddb	520R	Kdlc	8-20-58	64	8.3	990	...	53	...	38
-18dbaa	35R	Qb, Ql	8-18-59	60	7.5	925	...	513	...	...
-21ccca	120R	Qp, Qs, Kdmc	8-20-58	64	6.8	960	...	336	...	25
-23cbdd	17.0	Qes, Qs	10-30-57	57	7.6	990	...	171	...	...
-24cbbe	21.7	Qes, Qs	10-30-57	57	7.6	...	...	249	...	...
-24cbba	31.1	Qes, Qs	4-29-58	55	7.5	1,700	...	291	...	...
-26adaa	27.0	Qp, Qs, Qo(1)	9-8-59	61	7.5	1,100	...	376	...	75
-30abeb	18R	Qpp, Qb, Ql	9-24-57	...	7.3	570	...	...	...	...
-30adcb2	489R	TKdu, Kdmc, Kdlc	4-1-62	53	7.7	510	2.8	120	...	...
-30adbb	45R	Ql	8-8-58	56	7.2	650	...	...	...	...
-30adcc	637R	TKdu, Kdlc	7-6-60	64	7.7	620	...	...	...	...
-30adcc2	42R	Ql	7-6-60	54	7.5	950	...	159	...	25
-33cdac	594R	Kdlc	11-28-59	53	7.9	352	...	...	...	...
-36ccaa	820R	Kdmc, Kdlc	2-10-59	64	...	750	...	...	...	...
CJ-70-1aabb	120R	Kdmc	8-11-58	...	8.4	1,540	...	...	...	...
-1abac	122R	TKdu, Kdl	8-4-60	...	7.5	1,402	...	...	...	...
-1abeb	100R	Kdlu	8-25-58	58	8.2	840	...	...	...	...
-1abbb	12.7	Qb	6-26-58	70	7.2	740	...	154	...	23
-1abbb2	14	Qb	6-26-58	61	7.0	400	...	475	...	25
-8daca	Spring	Qs	11-17-59	51	7.4	285	...	...	...	...
-9adab	25R	Qp, Ql	5-22-58	59	7.0	600	...	212	...	...
-10cbbb	17.3	Qb	11-20-58	56	7.5	500	...	...	...	...
-11dbbb	243R	Kdlc, Klu	8-26-58	69	8.0	860	...	...	...	...
-12bbde	536	Kdlc, Klu	9-29-59	59	8.8	1,400	...	...	...	...
-12dbbe	497	Kdlc, Klu	3-22-57	65	8.2	740	...	...	...	...
-13acbe	450R	Kdmc, Kdlc	6-15-58	62	8.4	300	...	...	...	...
-13aded	46R	Qs	8-25-58	57	7.6	590	...	283	...	38
-13bbab	85R	Kdmc	8-23-58	57	7.9	700	...	...	...	50
-13bdac	400R	Kdmc, Kdlc	3-27-56	59	8.5	775	...	...	...	...
-13bdad	130R	Kdmc	5-13-58	54	8.4	770	...	17	...	...
-13bdad2	33R	Qs	5-13-58	49	7.7	940	...	323	...	...
-13bddd	490R	Kdlc	8-12-58	62	8.5	200	...	74	<.1	28
-13cadd	425R	Kdlc	8-18-58	...	8.3	580	...	17	<.1	38
-14aabb	93R	Kdmc	8-20-58	68	8.0	630	...	106	...	25
-15bbbb	34.1	Qc, Qs	9-29-59	55	9.0	890	...	147	...	...
-23cddb	100R	TKdc	8-23-58	57	8.2	410	...	35	...	25
-25bbdd	58R	Qc, Ql, TKdc(1)	7-25-58	59	8.3	800	...	71	...	25

See footnotes at end of table.

Table 2.--Field determination of chemical quality of water from wells and springs--Continued

Location number	Depth of well (feet) 1/	Geologic source 2/	Date of collection	Temperature (°F)	pH	Specific conductance 3/	Iron (Fe) 4/	Hardness as CaCO <sub>3</sub> 5/	Hydrogen sulfide (H <sub>2</sub> S) 6/	Chloride (Cl) 7/
C6-70-kdaab	40R	pc	3-22-57	48	7.3	560	0.4	256	...	262
-3dbbd	38R	pc	5- 2-61	49	6.7	195	.4	51	...	4
-11abdd	343R	pc	5- 2-61	50	7.1	445	.4	171	...	7
-24bbcb	16.5	Qpp	5- 6-61	46	6.6	130	.8	51	...	10
-24bbcc	16R	pc	5- 2-61	47	7.0	295	.3	103	...	12
-25bdcc	91R	pc	5- 2-61	43	7.2	295	.5	103	...	8
C6-71-12dcd	100R	pc	7- 6-60	48	7.9	230	.1	72	...	...
C7-65-14ccce	298R	TKdu	6-30-61	57	6.8	185	.4	77	...	6
-30babbb	120R	TKdu	3-31-58	55	6.8	235	.2	77	...	10
C7-66-3aaaa	160R	TKdu	9-21-59	...	...	330	.4	94	...	...
-19dbdb	225R	TKdu	7-17-62	58	7.7	620	.4	275	...	26
-22ccad	56R	Qp,Qb,Ql	9-26-59	50	6.7	390	.3	137	...	...
-22ccdc	70R	Qb,Ql	9-22-59	51	6.9	330	.1	120	...	...
-34acdb	50.9	Qp,Qb,Ql	7-23-59	52	6.9	565	.4	171	...	...
C7-67-3abed	1,795R	Kdmc,Kalc	1-18-57	69	8.5	260	...	68	...	...
-3abed2	801R	TKdu	10- 5-59	60	6.9	290	...	103	...	< 12
C7-68-2dadb	100R	Qb,TKdu	8-27-57	69	7.2	620	...	188	...	63
-4abba	800R	Kdmc,Kalc	9-16-60	60	7.7	395	.4	111	< 0.1	...
-13cded	49.8	Qb,Ql	7- 9-59	57	6.9	420	.1	111	...	...
C8-69-3ccbb	135R	TKdu	4-11-58	61	6.8	610	.4	292	...	...
-16dacc	182R	TKdu	7- 1-61	57	6.9	165	.4	60	...	10
-32dcac	145R	TKdu	7- 3-61	54	7.1	350	.4	137	...	...
C8-66-1bbbc	229R	TKdu	7- 1-61	57	6.4	190	.4	43	...	10
-10abab	52R	Ql	2- 4-58	46	...	225	...	86	...	...
C8-67-11baca	90R	Qb,Ql	2-27-58	54	6.6	450	...	154	...	...
-11dadb	1,608R	Kdmc,Kalc	2-27-58	53	7.3	290	...	103	< .1	...
-11dbdd	90R	Ql	2-27-58	52	6.5	265	...	86	...	...
C8-68-5bcbd	25R	pc	7- 8-61	66	6.6	230	.3	94	...	9
C8-69-3dcna	Spring	pc	7- 3-61	60	7.0	135	.4	60	...	...

1/ Depth of well: Measured depth of wells less than 100 feet are given in feet and tenths below land surface datum. R, reported depths.

2/ pc, Precambrian; Pf, Fountain Formation; Ks, South Platte Formation of the Dakota Group; Kb, Benton Shale; Kt, transition zone; Kfm, Milliken Member of the Fox Hills Sandstone; Kls, a sandstone of the Laramie Formation; Klb, b sandstone of the Laramie Formation; Klu, upper part of the Laramie Formation; Kl, Laramie Formation; Kll, lower part of the lower conglomerate of the Dawson Formation; Kllu, upper part of the lower conglomerate of the Dawson Formation; Kalc, lower conglomerate of the Dawson Formation; Kdmu, upper part of the middle conglomerate of the Dawson Formation; Kdmc, middle conglomerate of the Dawson Formation; Kdl, lower part of the Dawson Formation; TKdu, upper conglomerate of the Dawson Formation; TKdu, upper part of the Dawson Formation; TKd, Dawson Formation; Qr, Rocky Flats Alluvium; Qv, Verdes Alluvium; Qs, Slocum Alluvium; Qo, older loess; Ql, Loup River Alluvium; Qy, younger loess; Qb, Broadway Alluvium; Qes, eolian sand; Qp, Piney Creek Alluvium; Qc, colluvium; Qpp, post-Piney Creek alluvium.

3/ Specific conductance in micromhos at 25°C.

4/ Quantities given in parts per million.

5/ Sampled at 10 feet.

6/ Sampled at 200 feet.

< Less than. > Greater than.

Table 7.--Specific conductance of and chloride concentrations in water from wells and springs

Location number	Depth (feet) 1/	Geologic source 2/	Date of collection	Tempera- ture (°F)	Chloride (Cl) 3/	Specific conductance 4/
B1-67-19add	697	Klb	4-11-57	59	50	1,140
B1-68-27bec	720	Klb	4-15-57	62	90	1,270
C1-66-18ace	32.6	Qb, Ql	7-28-56	56	113	1,500
C1-67-1dcbb		Qpp, Ql	9-28-56	63	120	1,290
-13cama	31.7	Qb, Ql	9-28-56	54	113	1,480
-26amad	41.1	Qb, Ql	9-28-56	54	99	1,330
-3bdab	280	Kmac	9-10-55		8	659
C1-70-21bdc	150.0	Klb, Klc	4-19-57	56	3	584
C2-67-1eada	28.4	Ql	9-11-55	56	87	1,000
-2bacc	41.0	Qb, Ql	9-10-55	55	55	1,390
-2cdac	48.6	Ql	3-10-56	55	102	1,390
-2ddac2	39.1	Ql	3-9-56		119	1,520
-3cdab	46	Qb, Ql	9-15-55		112	1,470
-9dacc2	50	Qb, Ql			446	2,380
-9dacc 2/	54	Qb, Ql	10- -59		390	2,120
-9dadb2	68	Qb, Ql			130	1,670
-9dadc3	50	Ql	10- -59		133	1,030
-10decc	41	Qb, Ql	11-13-55	53	148	1,740
-11ada	42.9	Ql	9-11-55		125	1,840
-11adb	41.1	Ql			121	1,820
-11beca	51.9	Ql	9-12-55	54	129	1,460
-11bdb	63	Ql	9-12-55		140	1,500
-16ccdc	49.3	Qb, Ql	9-10-55	55	64	1,030
-16dddc	36.6	Qb, Ql	6-2-56	55	260	1,460
-20dad	46.1	Qb, Ql	9-20-55		85	1,160
-20bdb	50	Qb, Ql	11-23-55		86	1,270
-20dabc	41.2	Qb, Ql	9-21-55	56	86	1,340
-20dddc	37.9	Qb, Ql	9-21-55		70	1,220
-21bbbd	500	Kmac	7-20-55		71	1,040
-21becc	47.1	Qb, Ql	9-19-55		59	884
-21bdeb	50	Qb, Ql	8-17-55	56	47	864
-21bdcd	49.4	Qb, Ql	9-17-55		41	825
-21bdcd2	93	Qb, Ql	8-17-55		42	824
-22acdc	178.0	TKdu	10-2-55			3,700
-22ccaa	42.1	Qss, Qv	6-2-56		1,120	3,970
-22ccaa	51	Qss, Ql	11-12-55		204	1,190
-22ccaa	51	Qss, Ql	1959		264	1,220
-22abcc 2/	50	Qss, Ql	11-12-55		42	826
-22qbab	70	Qb, Ql	10- -59		40	771
-22bbca	44.1	Qb, Ql			47	805
-22bdba	745	Kmac, Kalc	1959		0	497
-22bddd 2/	50.0	Qb, Ql	10- -59		46	
-29cdcd	63.3	Qb, Ql	9-21-55	55	68	1,180
C2-68-1bade	1,330	Klb, Klc, Kfu	4-23-57	69	131	1,460
-10bbaa	700	Kmac, Kalc, Klu	10-21-59	54	4.0	209
C3-65-21dca	900	TKdu, Kmac		61	16	484
-36daca	785	TKdu, Kmac		61	8.0	328
C3-66-10bab	320	TKdu	6-5-57	60	75	701
-22abbc	150	TKdu	6-12-57	59	10	414
-30dabc	410	TKdu	6-13-57	64	7.0	341
-31abca	170	TKdu	6-13-57	68	270	2,010
-31ccdb	30	Qp, Qb	4-30-58	51	48	1,170
-32ccca	1,003	Kmac	6-13-57	56	3.0	271
-33bcac	41.5	Qb, Ql	9-14-60	54	37	737
-34bbcd	525	TKdu	3-11-57	54	3.0	324
C3-67-12bab	23.0	Qp, Qv	9-9-55		121	2,550
-29ccaa	95	Ql	7-16-58	56	116	2,190
C3-68-12bbe2	850	Kmac, Kalc, Kl	6-6-57	64	3.0	313
-13bddd	33	Qb, Ql	9-26-56	57	112	1,750
-13bddd	33	Qb, Ql	6-15-57	56	66	1,800
-22abbb	25.8	Qb, Ql	4-16-56	58	80	1,280
-27ccdd	771	Kmac, Kalc	6-4-57	64	7.0	326
-27cbba	700	Kmac, Kalc	6-14-57	62	4.0	341
-35acda	800	Kmac, Kalc	6-11-57	67	3.0	279
C3-69-17bec	80	Qs, Kmac	4-29-58		11	2,110
-22ccab	Spring	Qss	6-12-57	57	27	1,530
-22dacc	Spring	Qs, Qp	6-13-57	55	49	1,500
C3-70-1abab	122	TKdu, Kdl	9-8-60	57	60	1,860
-13bddd	490	Kalc	8-12-58	62		874
-15babb	94.1	Qs, Qs	11-20-58	55	36	856
C4-66-7abab	72	Qv, Qs (f)	4-28-58	54	49	1,850
C4-67-18acab	26.0	Qb, Ql	2-25-59	53	26	606

See footnotes at end of table.

Table 7.--Specific conductance of and chloride concentrations in water from wells and springs--Continued

Location number	Depth (feet) 1/	Geologic source 2/	Date of collection	Tempera- ture (°F)	Chloride (Cl) 3/	Specific conductance 4/
Ck-67-21bdec	38.1	Qp, Qb, Ql	7-27-59	53	42	738
-21cddd	45.8	Qp, Qb, Ql	7-25-59	53	28	648
-27cdec	52.4	Qp, Qb, Ql	3-30-60	54	39	718
-28aadc2	50	Qp, Qb, Ql	7-27-59	53	34	661
Ck-68-12acca	61	Qb, Ql	8-10-56	58	100	1,500
-13acsd	80	Ql	8-15-56	56	28	571
-13acda	32.5	Ql	8-13-56	57	148	1,880
-19cddd	54	Qp	8-17-56	56	24	1,410
-28acdd	30.7	Qpp, Qb, Ql	8-29-56	56	75	1,300
-28ccbb	101.9	TKdu	8-28-56	55	48	1,600
-28dabd	17.1	Qpp, Qb	...	52	144	1,850
-33dcbb	49.3	Qpp, Qb, Ql	5-13-57	54	84	1,100
Ck-69-1bdad	95	Qs(?), TKdu	11-15-60	...	46	1,590
-5dbbd	200	TKdc	8-20-57	54	24	1,450
-25aada	506	Kdmc	11-15-60	...	22	574
-31dcdd	36.6	Qs	11-15-60	55	8.0	1,140
Ck-70-23deba	48.5	Kb	7-22-60	56	3	417
C5-66-29bbdc	55	Qp, Qb, Ql	8-10-57	52	5.0	376
-32dddc	31.5	Qp, Qb, Ql	6-24-59	52	9.0	428
C5-67-6abbb	1,104	Kdmc	11- 3-60	...	4.0	278
-10cabb	1,150	Kdmc	11-23-60	...	2.0	272
-17ebbb2	1,400	Kdmc, Kalc	11-23-60	...	14	585
C5-68-29bbb	860	Kdmc	11-17-60	...	24	302
-5dbbd	577	Kdmc	11-16-60	...	4.0	327
-8dcda	25	Qpp, Qb	8-30-56	55	67	934
-13dad	1,147	Kdmc, Kalc	6- 6-57	75	7.0	279
-15bdec	778	Kdmc	11-21-60	...	4.0	276
-17bbbb	744	Kdmc, Kalc	11-16-60	...	8.0	488
C5-69-9dddc	246	Kalc	10-27-59	54	18	606
-29aac	1,580	Klb	5- 3-57	...	670	2,460
-29aac	1,580	Klb	5- 3-57	...	1,350	4,600
C6-66-5adac	69.6	Qb, Ql	9- 1-59	52	9.5	436
-5bdc	71.0	Ql	10- 2-56	53	5.0	378
-5bdc	71.0	Ql	6-26-59	53	9.5	365
-27dbcc	44	Qb, Ql	...	52	16	543
C6-67-18baab	334	TKdu	...	56	4.0	281
C6-68-3dbac	533	Kdmc	7-17-57	60	4.0	283
-6dcdb	699.0	Kalc, Klu	11-25-60	...	10	447
-10acab	302	TKdu	7-17-57	56	3.0	288
-16abaa	465	TKdu	7-18-57	61	4.0	346
-17bdad	354	TKdu	7-19-57	59	5.0	370
-18dabb	350	Kdmc, Kdlu	...	56	1.0	309
-18dadd	31.3	Qpp, Qb	7- 3-57	57	20	613
-24bccc	400	TKdu	7-16-57	58	48	264
C6-69-24dda	48.2	Ql, Qs, Qv	10- 1-56	54	44	708
-24cccd	1,340	Klb, Klc, Kfm, Kt	7-20-57	66	1,290	4,490
C7-66-3aana	160	TKdu	9-21-59	...	8.0	316
-19aac	271	TKdu	10-17-59	54	...	410
-22odcc	70	Qpp, Qb, Ql	9-28-59	51	6.0	316
C7-68-24acb	100	Qp, TKdu	8-27-57	69	77	678
-13abca	450	TKdu	9-25-59	54	...	270

1/ Measured depths are given in feet and tenths below land surface; reported depths are given in feet.

2/ Kb, Benton Shale; Kt, transition zone; Kfm, Milliken Sandstone Member of the Fox Hills Sandstone; Klc, a sandstone of the Laramie Formation; Klb, b sandstone of the Laramie Formation; Klu, upper part of the Laramie Formation; Kdlu, upper part of the lower conglomerate of the Dawson Formation; Kalc, lower conglomerate of the Dawson Formation; Kdmc, middle conglomerate of the Dawson Formation; Kdl, lower part of the Dawson Formation; TKdc, upper conglomerate of the Dawson Formation; TKdu, upper part of the Dawson Formation; Qv, Verdeos Alluvium; Qs, Slocum Alluvium; Ql, Louviers Alluvium; Qy, Younger loess; Qb, Broadway Alluvium; Qes, Eolian sand; Qp, Piney Creek Alluvium; Qc, Colluvium; Qpp, post-Piney Creek alluvium.

3/ Concentration of chloride, in parts per million.

4/ Specific conductance, in micromhos at 25°C.

2/ Analysis furnished by the Colorado State Public Health Department.

Table 8.--Radiochemical analyses of water from wells and springs

(pc/l, picocuries per liter;  $\mu\text{e/l}$ , micrograms per liter; ppm, parts per million)

Location number	Depth of well (feet)	Geologic source	Date of collection	Temperature (°F)	Beta-gamma activity (pc/l)	Radium 226 (Ra 226) (pc/l)	Uranium (U) ( $\mu\text{e/l}$ )	Radium 228 (Ra 228) (pc/l)	Radon (Rn 222) (pc/l)	Thorium (Th 232) (pc/l)	Gross alpha activity (pc/l)	Gross beta activity (pc/l)	Alpha activity (pc/l)	Beta activity (pc/l)	Strontium (Sr) (ppm)
C2-68-23cbb2	710	KMac, KMc	1-10-58	62	<11	<0.1	<0.1	...	...	...	...	...	...	...	...
C2-68-23cbb2	1,446	Klb, KLa	1-10-58	77	<11	<0.1	<0.1	...	...	...	...	...	...	...	...
C2-68-25cdd2	300	Qpp, Ql	1-10-58	54	<8	.1	34	...	...	...	...	...	...	...	...
C2-68-31cabb	1,700	KMac, KMc	1-9-58	61	<17	.2	.2	...	...	...	...	...	...	...	...
C2-68-31cabb	1,546	Klb, KLa, Kfm	1-9-58	75	<8	.2	.1	...	...	...	...	...	...	...	...
C3-69-34cbb2	1,740	Klb, KLa, Kfm	9-9-57	...	<68	.5	.2	...	...	...	...	...	...	...	...
C3-69-34cbb2	550	KMc	6-10-54	60	9	.7	.1	...	...	...	...	...	...	...	...
C3-69-34cbb2	1,745	Klb, KLa, Kfm	11-19-56	...	<27	.1	...	...	...	...	...	...	...	...	...
C4-67-21bada	56.1	Qp, Qb, Ql	1-31-58	56	<19	.2	4.2	...	...	...	...	...	...	...	...
C4-68-59cad	32.2	Qpp, Qb, Ql	1-16-58	54	<19	.2	7.4	...	...	...	...	...	...	...	...
C4-70-23dbbc	275	Ks	7-22-60	57	9,181.4	2,080.4	.1	...	...	...	...	...	7,244.0	9,181.4	...
C5-69-19babb	600	KMc	2-5-58	60	<25	4,040.2	1,080.1	...	...	<0.1	...	...	...	...	...
C5-69-19babb	677	KMc	2-5-58	76	<8	1,180.1	180.1	...	...	280.1	...	...	...	...	1.0
C5-68-17cdaa	42.0	Klb, KLa, Kfm	...	53	<23	.3	12	...	...	...	...	...	...	...	<1
C5-68-28babb	1,948	Klb, KLa, Kfm	1-13-58	83	<25	<1	<1	...	...	...	...	...	...	...	...
C5-69-18cbb2	174	Ks	7-26-60	...	...	1,540.3	680.1	...	...	...	...	...	...	...	...
C6-57-27cdab	120	KMc	12-10-59	...	...	340.1	...	...	...	...	...	...	...	...	...
C6-58-13babb	715	KMac, KMc	2-26-58	59	<13	1,740.2	2.3	...	...	<.6	...	...	...	...	...
C6-69-23dbbc	38.3	Qpp, Ql	1-17-58	49	22	.2	...	...	...	...	...	...	...	...	...
C6-71-15bada	183	Ks	7-10-60	...	...	240.1	5825	...	...	...	...	...	...	...	...
C7-66-19babb	225	KMc	12-30-59	58	...	...	...	...	...	...	...	...	...	...	...
C7-66-27bada	270	KMc	7-5-60	...	...	...	...	...	...	...	...	...	...	...	...
C7-67-34bada	1,755	KMac, KMc	10-13-59	69	142	1,340.3	280.1	...	...	...	...	...	...	...	...
C7-67-34bada	801	KMc	2-4-58	49	21	192	...	...	...	...	...	...	...	...	...
Do	...	...	10-5-59	...	...	...	...	...	...	...	...	...	...	...	...
Do	...	...	at 11:40 am	...	...	...	...	...	...	...	...	...	...	...	...
Do	...	...	at 12:00 pm	...	...	...	...	...	...	...	...	...	...	...	...
Do	...	...	17-18-57	...	...	...	...	...	...	...	...	...	...	...	...
C7-67-15bada	174	KMc	12-30-59	...	...	...	...	...	...	...	...	...	...	...	...
C7-67-15bada	205	KMc	12-30-59	...	...	...	...	...	...	...	...	...	...	...	...
C7-69-21bada	Spring	Ks	6-15-59	...	...	...	...	...	...	...	...	...	...	...	...
C7-69-21bada	Spring	Ks	6-15-59	...	...	...	...	...	...	...	...	...	...	...	...
C8-66-10abab	52	Ql	2-4-58	46	<8	1,110.1	580.1	...	...	...	...	...	...	...	...
C8-67-11bada	90	Qb, Ql	2-4-58	54	<11	.4	.8	...	...	...	...	...	...	...	...
C8-67-11bada	1,608	KMac, KMc	3-30-59	53	10	340.1	.4	...	...	...	...	...	...	...	<1
C8-67-11bada	90	Ql	2-27-58	52	14	.6	.5	...	...	...	...	...	...	...	...

1/ Depth of well: Measured depths are given in feet below land surface; reported depths are given in feet below land surface.

2/ Geologic source: Ks, South Platte Formation of the Dakota Group; Kfm, Milliken Sandstone Member of the Fox Hills Sandstone; KLa, sandstone of the Laramie Formation; Klb, sandstone of the Laramie Formation; Klu, upper part of the Laramie Formation; KMc, lower conglomerate of the Laramie Formation; KMac, middle conglomerate of the Laramie Formation; Kfm, upper part of the Laramie Formation; Ql, Loup River Alluvium; Qb, Broadway Alluvium; Qp, Piney Creek Alluvium; Qpp, post-Piney Creek alluvium.

&lt; Less than.

Table 9.--Physical properties of selected samples of water-bearing materials  
(Analyses by the Hydrologic Laboratory of the U.S. Geological Survey, Denver, Colo.)

Formation Location number			Method of sam- pling	Depth (feet)	Dry unit weight (gm/cc)	Speci- fic reten- osity 5/ (calcu- lated)	Average coefficient of permeability (gpd/ft <sup>2</sup> )	Particle-size distribution, in percent by weight																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
								Clay and silt sizes (millimeters)		Sand sizes (millimeters)					Gravel sizes (millimeters)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
										less than 0.004	0.004 to 0.0625	Very fine 0.0625 to 0.125	Fine 0.125 to 0.25	Medium 0.25 to 0.5	Coarse 0.5 to 1.0	Very coarse 1.0 to 2.0	Very fine 2.0 to 4.0	Fine 4.0 to 8.0	Medium 8.0 to 16.0	Coarse 16.0 to 32.0	Very coarse 32.0 to 64.0	Cobbles 64.0 to 128.0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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See footnotes at end of table.

Table 9.--Physical properties of selected samples of water-bearing materials.--Continued  
(Analyses by the Hydrologic Laboratory of the U.S. Geological Survey, Denver, Colo.)

Location number	Formation sampled	Method of sampling	Depth (feet)		Dry unit weight (gm/cc)	Specific retention $\frac{w}{L}$ (percent)	Average coefficient of permeability (gpd/ft <sup>2</sup> )	Particle-size distribution, in percent by weight																
			From	To				Clay and silt sizes (millimeters)		Sand sizes (millimeters)					Gravel sizes (millimeters)									
								less than 0.004	0.004 to 0.0625	Very fine 0.0625 to 0.125	Fine 0.125 to 0.25	Medium 0.25 to 0.5	Coarse 0.5 to 1.0	Very coarse 1.0 to 2.0	Very fine 2.0 to 4.0	Fine 4.0 to 8.0	Medium 8.0 to 16.0	Coarse 16.0 to 32.0	Very coarse 32.0 to 64.0	Cobbles 64.0 to 128.0				
C4-57-	28adcc	Q1	D	25.5	27.5	1.65	3.4	37.0	33.6	1,700	2.3	3.9	0.4	1.9	10.3	38.6	29.0	13.8	3.3	.	.	.		
	28adcc	Q1	D	27.5	32.5	1.66	2.5	36.9	34.4	590	3.9	3.9	.4	3.1	5.1	46.1	29.3	10.6	1.2	.	.	.		
	28adcc	Q1	D	32.5	37.5	1.61	3.1	38.5	35.4	22,000	1.4	1.4	.6	1.7	4.4	13.3	38.9	39.0	.3	.	.	.		
	28adcc	Q1	D	42.5	47.5	1.65	3.5	36.0	32.5	3,300	1.6	1.6	1.4	2.9	6.1	18.2	30.5	34.0	4.8	.	.	.		
	28adcc	Q1	D	47.5	52.5	1.62	6.6	37.9	31.3	4,100	2.4	2.4	.4	.6	1.1	15.1	61.9	17.2	.6	.	.	.		
	28adcc	Q1	D	57.5	62.5	1.65	5.8	36.8	31.0	4,200	2.7	2.7	.5	.8	2.6	10.6	27.8	36.5	18.1	.4	.	.	.	
	28adcc	Op	D	.0	3.5	1.41	29.5	46.8	17.3		23.0		14.4	12.0	10.4	4.0	.4	.	.	.	.	.	.	
	28adcc	Op,Ob	D	3.5	8.5	1.62	17.9	31.6	13.7	8	6.2		7.6	3.3	8.9	20.3	13.9	12.0	11.0	10.3	4.5	.	.	.
	28adcc	Ob	D	8.5	13.5	1.83	14.9	31.7	16.8	8	5.8		3.4	1.9	5.0	14.6	17.8	18.5	20.0	10.3	2.7	.	.	.
	28adcc	Ob	D	13.5	18.5	1.84	14.4	29.8	15.4	33	5.1		3.4	3.4	5.5	14.2	20.7	21.1	18.1	7.4	3.2	.	.	.
C4-58-	28adcc	Ob	D	18.5	23.5	1.86	12.3	29.0	16.7	17	9.2		3.0	5.6	11.9	17.1	22.6	21.2	7.9	1.5	.	.	.	.
	28adcc	Ob,Ol	D	23.5	28.5	1.77	8.8	31.0	24.2	22	5.8		1.9	4.5	8.8	15.0	18.3	32.7	6.2	2.7	4.1	.	.	.
	28adcc	Q1	D	28.5	33.5	1.80	10.0	31.8	24.2	19	6.0		2.2	4.7	11.9	20.4	24.0	22.1	8.1	.6	.	.	.	
	28adcc	Q1	D	33.5	38.5	1.73	10.0	34.5	24.5	91	4.2		1.4	3.3	9.2	19.9	27.9	24.3	9.8	.	.	.	.	
	28adcc	Q1	D	38.5	42.5	1.75	5.6	33.2	27.6	130	3.2		1.1	3.0	9.0	18.3	28.5	28.5	8.2	.2	.	.	.	
	5dbda	Q1	D	22.5	27.5	1.78	5.2	31.8	26.6	9,000	5.6		2.4	2.8	2.3	1.8	6.1	16.9	14.9	28.9	18.3	.	.	.
	5dbda	Q1	D	30.0	37.5	1.70	11.0	35.2	24.2	2,000	7.0		1.1	1.6	2.5	3.8	13.6	28.2	30.3	15.9	.	.	.	.
	5dbda	Q1	D	37.5	42.5	1.70	9.4	34.0	24.6	540	6.0		2.0	3.0	4.7	6.1	27.1	32.9	4.8	2.4	.	.	.	.
	5dbda	Q1	D	42.5	47.5	1.73	9.4	34.0	24.6	540	6.0		1.9	3.1	7.0	12.2	33.8	26.0	9.1	.9	.	.	.	.
	C4-59-	TKdc	TKdc	C	outcrop		13.7	51.5	37.8	73	10.1		6.7	14.0	30.1	28.2	9.2	1.6	1.1	.	.	.	.	.
19dbab	TKdc	C	outcrop			18.9	28.9	10.0		6.3		3.2	5.0	7.3	10.0	8.2	9.0	8.4	9.5	11.2	5.4	16.5		
34abab	Q1	D	9.0	12.5	1.87	5.7	29.2	23.5	1,000	19.2		8.1	31.5	27.4	.7	.	.	.	.	.	.	.	.	
C4-70-	24ccbb	Kfm	C,D	outcrop		12.9	31.6	18.7	.3	7.6		40.6	34.5	6.8	1.2	.1	.	.	.	.	.	.	.	
	24ccbb	Kdc	C	outcrop		15.1	30.3	15.2	.3	5.3		4.3	12.3	35.3	31.9	8.3	1.4	.7	.5	.	.	.	.	
	24ccbb	Kdl	Cyl	outcrop		14.6	24.9	10.3	.3	10.4		16.0	42.6	28.1	2.8	.1	.	.	.	.	.	.	.	
	24ccbb	Kdl	CH	outcrop		16.0	23.9	7.9		11.1		25.9	47.4	15.1	.5	.1	.	.	.	.	.	.	.	
	24ccbb	Kdl	D	outcrop		12.7	36.1	23.4		2.7		1.7	4.0	6.4	10.2	12.2	15.0	17.2	17.6	10.2	2.8	.	.	
	24ccbb	Kdl	D	outcrop		10.0	37.7	27.7		2.1		1.8	2.6	6.9	10.3	12.7	13.8	16.1	17.7	12.9	3.1	8.8		
	24ccbb	Kdl	D	outcrop		12.0	36.5	24.5		2.6		1.9	5.1	9.7	10.0	8.6	11.3	10.1	8.1	8.2	15.6	.	.	
	24ccbb	Kdl	C	outcrop		14.5	21.8	7.3		2.2		1.3	5.1	28.4	34.9	26.1	2.0	.	.	.	.	.	.	.
	24ccbb	Kdl	Cyl	outcrop		19.2	31.1	11.9		16.6		5.4	11.1	26.9	25.7	14.3	.	.	.	.	.	.	.	.
	24ccbb	Kdl	Cyl	outcrop		3.1	49.2	46.1		8.0		6.4	25.8	48.8	10.4	.6	.	.	.	.	.	.	.	.
C5-66-	25ab	TKdc	C	outcrop		21.3	50.9	29.6	83	8.6		5.5	12.6	19.1	15.5	11.1	5.9	8.7	5.8	3.2	.	.	.	
	26acbc	Kly	C	outcrop					.3	5.8		33.9	54.1	5.8	.4	.	.	.	.	.	.	.	.	.
	26acra	Ka	C	outcrop					.05	23.6		48.3	26.0	2.1	.	.	.	.	.	.	.	.	.	.
	35dcbe	Pl	C	outcrop					.2	5.9		29.4	53.4	10.9	.4	.	.	.	.	.	.	.	.	.
	35dcbe	Pl	C	outcrop					.0007	23.2		53.3	17.4	6.1	.	.	.	.	.	.	.	.	.	.
C5-66-	20cccc	Qb	D	15.0	17.5	1.78	4.6	32.6	28.0	840	1.3		.3	2.2	16.4	41.2	30.2	6.4	1.8	.2	.	.	.	.
	20cccc	Qb	D	20.0	22.5	1.71	6.2	35.0	28.8	550	1.7		.7	3.5	28.4	24.3	34.9	6.1	1.4	.	.	.	.	.
	20cccc	Qb	D	27.5	30.0	1.77	5.8	32.4	26.6	940	2.1		2.3	7.6	20.7	23.4	28.7	12.7	2.5	.	.	.	.	.
	20cccc	Q1	D	35.0	37.5	1.69	3.7	35.7	32.0	3,100	.6		.3	2.7	19.7	21.4	49.9	1.4	4.0	.	.	.	.	.
	20cccc	Q1	D	40.0	42.5	1.78	7.4	32.3	24.9	550	4.7		2.1	5.9	22.2	16.9	27.1	12.0	8.9	.2	.	.	.	.

See footnotes at end of table.

Table 9.--Physical properties of selected samples of water-bearing materials. --Continued  
(Analyses by the Hydrologic Laboratory of the U.S. Geological Survey, Denver, Colo.)

[illegible]

See footnotes at end of table.



Table 9.--Physical properties of selected samples of water-bearing materials.--Continued  
(Analyses by the Hydrologic Laboratory of the U.S. Geological Survey, Denver, Colo.)

- 1/ Pl. Lyons Sandstone; Kly, Lytle Formation of the Dakota Group; Ks, South Platte Formation of the Dakota Group; Kfm, Milliken Sandstone Member of the Fox Hills Sandstone; Klb, b sandstone of the Laramie Formation; Kdmc, middle conglomerate of the Dawson Formation; Kdl, lower part of the Dawson Formation; Tkdc, upper conglomerate of the Dawson Formation; Tkdu, upper part of the Dawson Formation; Qv, Verdon Alluvium; Ql, Louviers Alluvium; Qy, Younger loess; Qb, Broadway Alluvium; Qes, eolian sand; Qp, Piney Creek Alluvium; Qpp, post-Piney Creek alluvium.
- 2/ C, core; Ck, large block or chunk of consolidated or moderately consolidated material collected; Cyl, sampling cylinder; D, unconsolidated material collected from drill cuttings or outcrop.
- 3/ Dry unit weight given in grams per cubic centimeter.
- 4/ Specific retention is the ratio of the volume of water retained after a saturated rock has been drained by gravity to the bulk volume of the rock.
- 5/ Porosity is the ratio of the aggregate volume of the voids in a rock or soil to its bulk volume.
- 6/ Specific yield is the ratio of the volume of water in a saturated rock that will drain by gravity to the bulk volume of the rock. Porosity minus specific retention equals specific yield.
- 7/ Coefficient of permeability is the amount of water that will flow through a unit cross section of material in a unit of time under a unit hydraulic gradient at a given temperature. The tabulated values are for a temperature of 60°F. (gpd/ft<sup>2</sup>), gallons per day per square foot.